

2020



ANNUAL WARRIOR

SURVEY



REPORT OF FINDINGS

PREPARED BY:



EXECUTIVE SUMMARY

This executive summary includes a brief description of the survey purpose, content, and administration as well as top-line findings from the collected data. More detailed information can be found in the body of the report.

ABOUT THE SURVEY

SURVEY OBJECTIVE. The 2020 Wounded Warrior Project® (WWP) Annual Warrior Survey is the 11th annual administration of the survey. The first survey, administered in 2010, collected baseline data on WWP warriors. The subsequent surveys provide updates that allow WWP to identify trends among its warriors and to compare their outcomes with those of other military and veteran populations. The survey is not intended to measure the impact of individual WWP programs. WWP uses the annual survey data to determine how it can better serve its warriors.

SURVEY CONTENT. The survey measures outcomes within the following general topics about WWP warriors: Background Information (military experiences and demographic data), COVID-19 Impact, Physical and Mental Well-Being, and Financial Wellness.

2020 SURVEY ADMINISTRATION. The web survey was fielded to 121,981 WWP warriors from May 5 to June 19, 2020, and 28,282 warriors completed the survey. Email communications included a prenotification, survey invitation, and nine reminders. Warriors who completed the survey were offered a choice between a phone wallet or 3-in-1 charging cable as a small token of appreciation for their participation.

The final unweighted response rate for the 2020 survey was 23.2 percent (28,282 completed surveys among 121,980 eligible warriors), which was almost 10 percentage points lower than last year's 32.7 percent response rate. The lower response rate may be a result of the change in the field period, which was 12 days fewer than the 2019 fielding period and began in May instead of the typical March start. It could also be related to the survey launching during the COVID-19 pandemic and economic downturn. The survey data were weighted to allow the production of estimates that are representative of the entire 2020 WWP population.

ACKNOWLEDGMENTS

The 2020 Annual Warrior Survey Report was prepared by Westat on behalf of Wounded Warrior Project. Contributing authors to this report were April Fales, Michael Hornbostel, Christine Borger, Mary Gabay, Kaitlynn Genoversa-Wong, Shaima Bereznitsky, Chinedum Orji, Wayne Hintze, William Cecere, Randy Herbison, Jo Chung, and Jyothi Pabbaraju. The front and back covers of the report were provided by WWP. We would like to recognize Melanie Mousseau, Amanda Peterson, and Elizabeth Odom at WWP for their guidance and feedback during production of this report. Most importantly, a special thanks to all the warriors and caregivers who took the time to provide valuable feedback that makes this report possible. We also thank them for their contributions to our country.

TOP-LINE FINDINGS

WARRIOR BACKGROUND INFORMATION

DEMOGRAPHIC PROFILE. The following presents a 2020 demographic profile of WWP warriors. (All estimates are based on weighted data.)

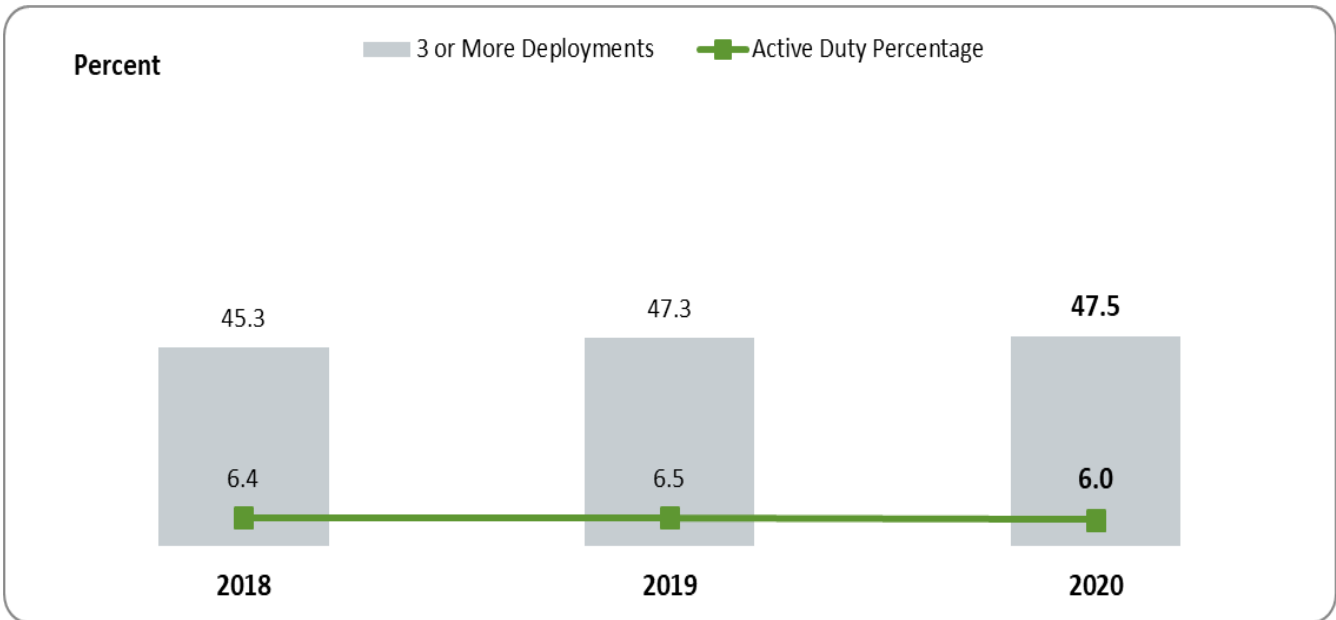
- Men – 80.3%
- Mean age – 43 years
- Currently married – 66.2%
- Bachelor’s degree or higher – 41.5%
- Race/ethnicity:
 - White – 63.8%
 - Hispanic – 19.8%
 - Black or African American – 16.6%
 - American Indian or Alaska Native – 5.0%
 - Asian – 4.0%
 - Other race/ethnicity – 3.1%
 - Native Hawaiian or other Pacific Islander – 1.5%
- Geographic location:
 - South – 55.0%
 - West – 23.5%
 - Midwest – 12.3%
 - Northeast – 9.3%

MILITARY PROFILE. The demographic profile of warriors has not changed much in recent years. Most warriors were or are enlisted service members (90.5%). A little more than 3 in 5 enlisted warriors (61.8%) achieved the rank of E5–E9.

Differences in military profiles over the past three years reflects a continuing decline in the proportion of active-duty warriors. Figure ES-1 depicts the three-year trend. The proportion of warriors on active duty declined slightly from the prior year (6.0% in 2020; 6.5% in 2019).

Almost half of warriors (47.5%) have deployed three or more times during their military career. Almost all warriors who have deployed since 2001 did so at least once to a combat area (91.6%).

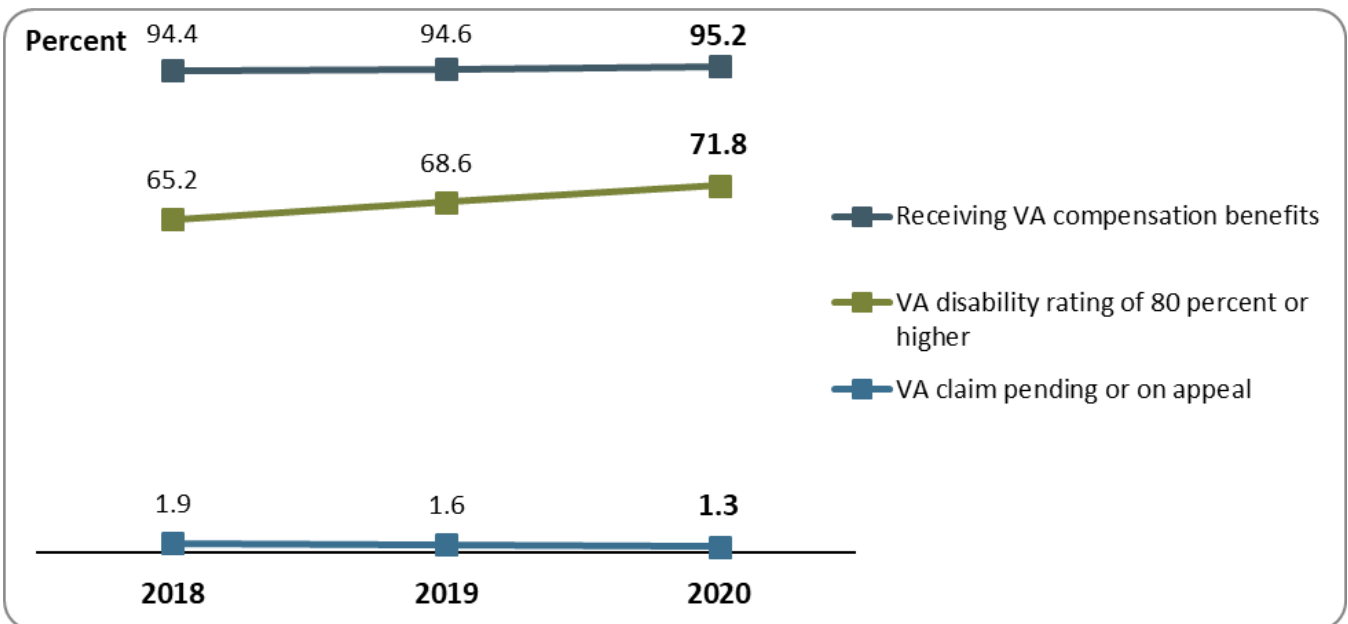
Figure ES-1. Active-Duty Warriors and Warriors with Deployments



SERVICE-CONNECTED INJURIES AND HEALTH PROBLEMS.

As Figure ES-2 shows, the percentage of warriors who are not on active duty receiving compensation benefits from the Department of Veterans Affairs (VA) is similar to 2019 at 95 percent. About 7 in 10 warriors (71.8% in 2020 and 68.6% in 2019) had disability ratings of 80 percent or higher, also a rising trend. The percentage of warriors reporting pending claims or claims on appeal at VA has remained steady (1.3% in 2020 and 1.6% in 2019).

Figure ES-2. VA Compensation Benefits, Ratings, and Pending VA Claims Among Non-Active-Duty Warriors



The most common self-reported injuries and health problems among warriors include:

- Sleep problems – 83.6%
- Post-traumatic stress disorder (PTSD) – 82.8%
- Anxiety – 76.6%
- Back, neck, or shoulder problems – 74.3%
- Depression – 72.4%

About 3 in 10 warriors (30.6% in 2020 and 31.8% in 2019) need the aid and attendance of another person because of their injuries and health problems. Among warriors needing assistance, approximately one-fifth (21.9%) need more than 40 hours of aid every week.

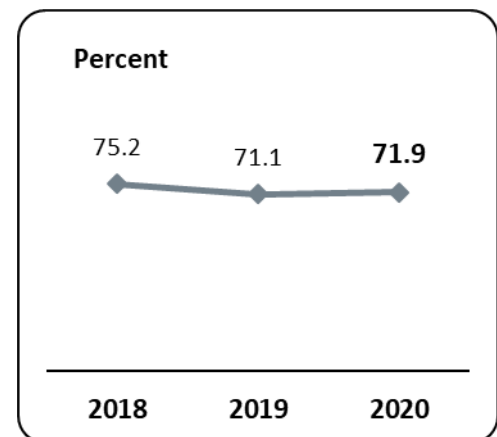
MILITARY SEXUAL TRAUMA. When examining the list of self-reported severe injuries, military sexual trauma (MST) was reported by 10.9 percent of warriors including almost half (43.7%) of female warriors. Among all warriors, 15.1 percent experienced uninvited and unwanted sexual attention and about 10 percent experienced the force or threat of force to have sexual contact against their will. Among female warriors, about 61 percent experienced sexual harassment and about 44 percent experienced sexual assault. Among male warriors, about 4 percent experienced sexual harassment and about 2 percent experienced sexual assault.

CURRENT HEALTH CARE COVERAGE. Similar to last year, 71.9 percent of warriors have health care coverage through the VA. Figure ES-3 presents the three-year trend.

Almost three-fourths (74.0%) of warriors with VA health care coverage and at least one other health coverage source use the VA as their primary health care provider. About 3 percent of warriors reported having no health care coverage.

TOXIC EXPOSURE. Warriors were asked if they were exposed to environmental hazards such as chemical warfare agents, ionizing radiation, burn pits, or other potentially toxic substances during their military service. A majority (70.6%) of warriors reported they had definitely been exposed to hazardous chemicals, and an additional 18 percent reported they probably have been exposed. However, only 16.1 percent of those warriors said they had received treatment for their exposure at the VA, though this is an increase from 9 percent last year. Slightly more than 30 percent (31.9%) are enrolled in the VA Burn Pit registry. Among warriors who definitely or probably experienced toxic exposure, the majority were exposed to burn pits (85.7%) or sand, dust, and particulates (75.5%). Those warriors with self-reported toxic exposure report experiencing muscle and joint pain (87.5%) and sleep disturbances (85.6%) related to their exposure.

Figure ES-3. Warriors with VA Health Care Coverage



IMPACT OF THE COVID-19 PANDEMIC

The 2020 Annual Warrior Survey was administered from May to June 2020 while social distancing and stay-at-home orders were in place in many areas across the country. With these measures in place, the coronavirus disease 2019 (COVID-19) pandemic has created additional challenges to mental health, physical health, and financial wellness, in particular for populations like wounded warriors who already face disparities. This year the Annual Warrior Survey included questions specific to warriors' experience during the pandemic.

COVID-19 AND MENTAL AND PHYSICAL HEALTH. A substantial percentage of warriors agree that social distancing is having a negative impact on their mental and physical health and their feelings of connectedness to those around them. Over 60 percent of warriors (60.5%) agreed with the statement "I feel more disconnected from my family, friends, or community." More than half (51.9%) agreed that their mental health is worse since socially distancing themselves and almost half (48.9%) agreed that their physical health is worse since socially distancing themselves. Warriors were more likely to have physical health appointments canceled or postponed rather than mental health appointments. Among those warriors with physical health appointments, almost 70 percent (69.9%) indicated that they had appointments canceled or postponed. A lower, but still significant, percentage of warriors (51.1%) had mental health appointments canceled or postponed. About a half of warriors agreed that the VA provided the information they needed to continue their mental health care (51.6%) and physical health care (48.4%). Fortunately, a large majority of warriors (68.8%) agreed that they know where to turn for help if they need it.

COVID-19 AND FINANCIAL WELLNESS. The pandemic has also created further challenges for warriors' financial wellness, in particular for warriors with health concerns. Over 40 percent of warriors (41.3%) agreed that they have experienced challenges related to their employment status due to COVID-19 and one-third (33.7%) agreed with the statement that they "have or expect to run out of money for myself or my family's necessities." Warriors with a self-reported health status of *fair* or *poor* tended to agree more strongly with experiencing challenges related to employment and finances than warriors with *good*, *very good*, or *excellent* health status. As self-reported health status improves, agreement with these challenges falls. This year the unemployment rate has also increased significantly at 16.2 percent compared to 11.5 percent in 2019. This is discussed in more detail in the Financial Wellness section below.

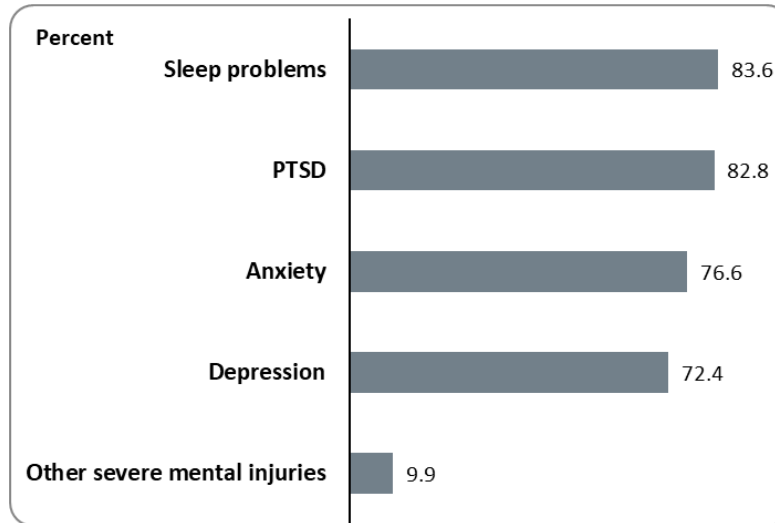
PHYSICAL AND MENTAL WELL-BEING

BACKGROUND. The 2020 Annual Warrior Survey uses a variety of validated scales to examine the current mental and physical health and health-related behaviors of warriors. These include:

- Patient Health Questionnaire (PHQ-9), which screens for major depression;
- Post-Traumatic Stress Disorder (PTSD) Checklist for Diagnostic and Statistical Manual Disorders (DSM-5) (PCL-5), which assesses the presence and severity of PTSD;
- Pittsburgh Sleep Quality Index (PSQI), which rates quality of sleep;
- Veterans RAND 12-Item Health Survey (VR-12), which offers health-related quality of life indicators, including the Mental Health Component Scale (MCS) and the Physical Health Component Scale (PCS);
- Connor Davidson 10-Item Resilience Scale (CD-RISC 10), which is a self-rated measure of the ability to overcome adversity;
- Alcohol Use Disorders Identification Test for Consumption (AUDIT-C), which assesses risky drinking;
- Two-Item Conjoint Screen (TICS), which screens for substance use disorder;
- California Health Interview Survey (CHIS) 2009 Dietary Screener, which assesses diet quality;
- Global Physical Activity Questionnaire (GPAQ) to examine physical activity among warriors; and
- UCLA 3 Item Loneliness scale to measure loneliness.

MENTAL HEALTH. Almost all warriors (92.6%) experienced a severe mental injury during their military service, and 82.6 percent report experiencing more than one. Figure ES-4 displays the percentage of warriors by type of self-reported severe mental injury sustained during service. These injuries may have long-lasting impacts, as shown by various scales measuring different aspects of current mental health. The PHQ-9 scale scores indicate that about one-third (34.4%) of warriors currently suffer from severe or moderately severe depression. As part of the PHQ-9, warriors were asked how often in the past two weeks they had been bothered by thoughts they would be better off dead or of hurting themselves in some way. Nearly a third (29.5%) of warriors reported having thoughts related to suicide. A little over half of warriors (54.1%) currently suffer from PTSD based on PCL-5 scores. Almost all warriors (90.6%) currently experience poor sleep quality based on their PSQI scores. Current mental health issues have a notable impact on warriors' quality of life, with the average warrior scoring about 28 percent below the national norm on the VR-12 MCS.

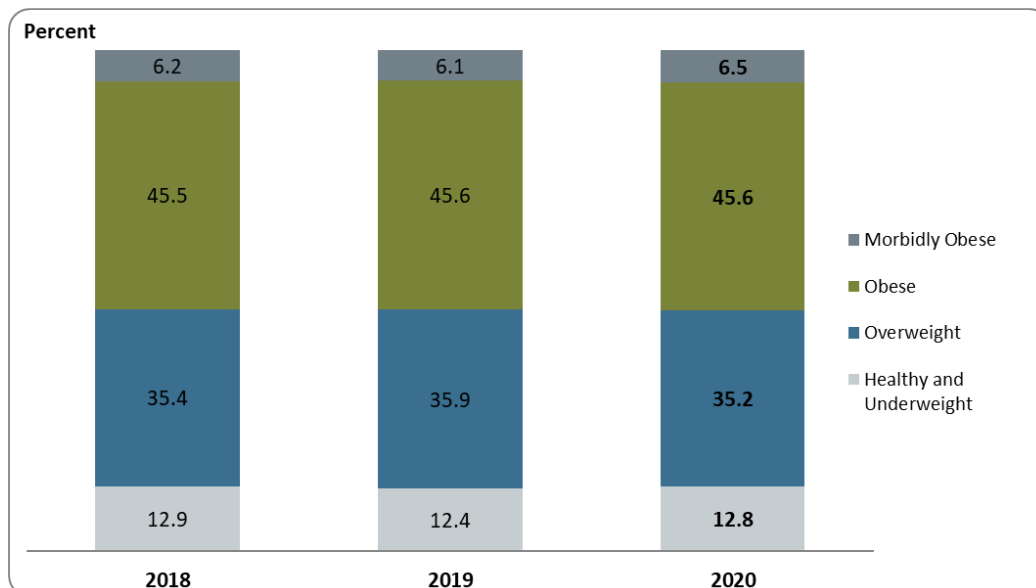
Figure ES-4. Severe Mental Health Injuries Sustained During Military Service



PHYSICAL HEALTH. Almost all (95.1%) warriors sustained severe physical injuries during military service, with 87.0 percent reporting more than one severe physical injury. The most commonly reported severe physical injuries are back, neck, or shoulder problems (74.3%), tinnitus (58.8%), knee injuries or problems (52.3%), migraines (49.7%), and severe hearing loss (48.6%).

Body mass index (BMI) scores indicate that the majority (52.1%) of warriors also suffer from obesity (obese and morbidly obese, combined), which puts them at higher risk for additional health problems including type 2 diabetes, heart disease and stroke, kidney disease, and sleep apnea. Figure ES-5 displays the distribution of warriors by weight status category. Obesity combined with poor physical health likely has a detrimental effect on warriors' quality of life, with the average warrior scoring about 24 percent below the national norm on the VR-12 PCS. Lower scores have been associated with having approximately two chronic physical health conditions, 30 percent more hospitalizations, and 20 percent more outpatient visits (Wilson and Kazis, 1997).

Figure ES-5. Warrior Body Mass Index Scores (BMI)



HEALTH-RELATED MATTERS. The survey evaluated the current health of warriors by examining the prevalence of risky drinking and substance abuse disorder, diet quality, and level of physical activity.

Among the 73.5 percent of warriors who drank alcohol in the past year, 43.3 percent of female warriors and 48.6 of male warriors score positive for risky drinking behavior, that is, consuming so much alcohol that the person is at risk of medical or social problems. More broadly, the TICS screens for substance abuse disorder, which includes misuse of drugs as well as alcohol. The TICS does not diagnose substance abuse disorder; rather, it indicates whether more detailed screening is necessary. Based on survey responses, 13.6 percent of those warriors who drank alcohol or misused drugs in the past year have a 72 percent likelihood of having a substance abuse disorder. That is, they may be identified as having the disorder if more detailed screening is completed.

Diet also has a direct impact on health. Beginning in 2019, the Annual Warrior Survey used elements of the CHIS 2009 Dietary Screen to assess the quality of warriors' diets. The analysis focused on the daily consumption of fruits, vegetables, and added sugars, finding that the typical warrior consumes 3.2 cups equivalent of fruits and vegetables, with men consuming 3.3 cups and women consuming 2.8 cups. This is just below the 2 to 2.5 cups of vegetables recommended for women and 2.5 to 3 cups of vegetables recommended for men, and the additionally recommended 1.5 cups of fruit for women and 2 cups of fruit for men.

Elements from the Global Physical Activity Questionnaire, an instrument used by the World Health Organization (WHO) to surveil levels of physical activity in different countries were also examined. The GPAQ can be used to assess whether warriors' sports, fitness, and recreational activities meet recommended thresholds for moderate and vigorous physical activity. Regular physical activity reduces the risk for depression, diabetes, heart disease, and other chronic conditions. Just under one-third (32.6%) of warriors engage in vigorous-intensity sports that cause large increases in breathing or heart rate, such as running or playing football for at least 10 minutes continuously. Those who engage in vigorous-intensity sports do these activities between three and four days a week for 86 minutes (for males) and 68 minutes (for females) each day. About half (49.2%) of warriors engage in moderate-intensity sports that cause small increases in breathing or heart rate such as brisk walking, cycling, swimming, or volleyball for at least 10 minutes continuously. Those who engage in moderate-intensity sports do these activities between three and four days a week for 80 minutes (for males) and 64 minutes (for females). This suggests that, on average, those who regularly engage in physical activity do meet the WHO guidelines of at least 150 minutes of moderate-intensity physical activity or 75 minutes of vigorous-intensity physical activity per week.

GAMING. New to the survey this year, warriors reported the average hours per day spent playing electronic games outside of school or work. On average, over the last 30 days, male warriors reported spending about 3.5 hours per day and female warriors reported about 3.1 hours per day playing electronic games outside of school or work. Nearly half of warriors who play electronic games indicated they do so because it helps them forget their problems. Playing games also helps calm more than a third (37.7%) of those who play electronic games when they are angry.

MENTAL HEALTH CARE SERVICES: ACCESS/RESOURCES. Less than half of all warriors (43.2%) visited a professional to get help with issues such as stress, emotional, alcohol, drug, or family problems in the three months prior to survey completion. This is lower than the 52.0 percent in 2019, however the survey was fielded during the height of the COVID-19 pandemic, when

visiting such a professional may not have been possible. Over a quarter of warriors (28.9% in 2020 and 31.8% in 2019) reported difficulty getting mental health care, put off getting such care, or did not get the care they needed during the past 12 months.

Nearly one-third (32.4%) of warriors cited inconsistent treatment or lapses in treatment as a reason they had difficulty getting mental health care. About one-third (34.8%) also reported that their reason for having difficulty accessing mental health care was not represented on the list of survey response options.

Warriors utilize various resources and tools to help address their mental health issues. The top three resources used for addressing their mental health concerns were:

- VA Medical Center – 66.6%
- Talking with another OEF/OIF/OND veteran – 36.9%
- Prescription medication – 36.3%

LONELINESS AND SOCIAL SUPPORT. To explore social support, warriors were asked to what extent they agree or disagree with two statements about their current relationships with friends, family members, co-workers, community members, and others. More than three-quarters (79.9%) of warriors agreed or strongly agreed with the statement, “There are people I can depend on if I really need it.” About three-quarters (75.6%) of warriors agreed or strongly agreed with the statement, “There are people who enjoy the same social activities that I do.” The majority of warriors have people whom they can rely on, and the majority know that there are people who enjoy doing the same things that they enjoy doing. New to the survey was the UCLA 3-Item Loneliness Scale. Scores of 6 or higher indicate loneliness, and the average warrior score was 6.1 with 68 percent of warriors scoring as lonely. Female warriors indicated feeling more lonely than male warriors, with 72.9 percent of females and 63.1 percent of males scoring as lonely.

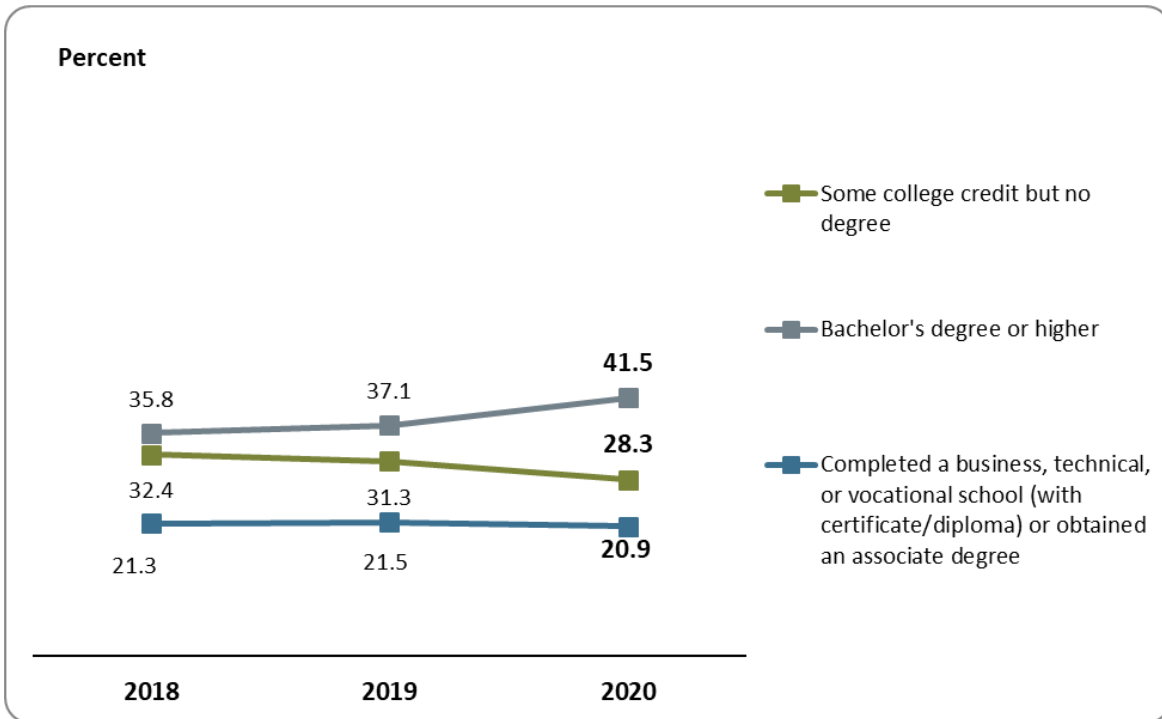
RESILIENCE. The survey used the 10-item version of the Connor-Davidson Resilience Scale to address current attitudes about resilience in the face of changes or hardships. About half of warriors (51.2%) indicated that it is *often true* or *true nearly all the time* that they are able to adapt when changes occur, and slightly less than half indicated that they tend to bounce back after illness, injury, or other hardships (48.6%).

The mean CD-RISC 10 score for WWP warriors is 24.3 (median 24.0, 0–40 scale with higher scores indicating greater resilience). This is much lower than mean scores found for the general U.S. population: 31.8 (Campbell-Sills et al., 2009). However, we know that individuals with PTSD tend to have lower CD-RISC scores when compared to the general U.S. population.

FINANCIAL WELLNESS

EDUCATIONAL ATTAINMENT. The proportion of warriors with a bachelor's degree or higher continues to increase (41.5% in 2020; 37.1% in 2019) as many warriors pursue further education. Figure ES-6 depicts growth in educational attainment among warriors over the past three years.

Figure ES-6. Growth in Educational Attainment



PURSUIT OF MORE EDUCATION. Warriors understand that education is vital to improving their future opportunities and have taken steps to gain additional education. About 1 in 5 warriors (17.9%) are now enrolled in school to pursue the following credentials:

- Bachelor's degree or higher – 70.9% of enrollees
- Associate degree – 17.3%
- Business, technical, or vocational school training leading to a certificate or diploma – 9.4%

The two primary benefits warriors use to finance their educational pursuits are the same as in 2019: the Post-9/11 GI Bill and the VA's Vocational Rehabilitation and Employment (VR&E) program (now called the Veteran Readiness and Employment Service). The percentage of warriors who are using the VR&E program to pursue more education (28.2% in 2020 and 26.3% in 2019) has increased slightly, while the percentage of warriors using the Post-9/11 GI Bill (50.0% in 2020, 55.1% in 2019, and 55.8% in 2018) has decreased after remaining stable in prior years.

LABOR FORCE/EMPLOYMENT STATUS. About half (52.5%) of warriors are employed, and most are working full time. Employment findings include the following:

- Labor force participation rate – 61.6%
- Percentage of warriors employed full time – 45.1%
- Percentage of warriors employed part time – 7.5%
- Percentage of employed warriors who are self-employed – 7.3%
- Unemployment rate (non-active-duty warriors) – 16.2%

For warriors who are not in the labor force, the primary reasons include mental health injury (27.4%), retirement (25.0%), and physical injury (18.2%). In addition, 3.9 percent of warriors who are not in the labor force have become too discouraged to continue looking for work.

Warriors work in many different industries. About a quarter of warriors (24.9%) currently work for the federal government. About 15 percent work in the military, including those on active duty and those working in other military jobs, which represents a slight decrease from last year.

BARRIERS TO EMPLOYMENT. Many factors make it difficult for warriors to obtain employment or to change jobs if already employed. The most common factors selected by warriors changed somewhat this year compared with 2019. The most frequently cited barriers to employment are:

- Mental health issues – 30.8% in 2020 and 35.0% in 2019
- Difficult to be around others – 23.7% in 2020 and 28.3% in 2019
- Not physically capable – 17.5% in 2020 and 19.6% in 2019
- Psychological distress or hopelessness – 16.9% in 2020 and 20.4% in 2019
- Not enough pay – 16.2% in 2020 and 17.2% in 2019

INCOME. Warriors reported on two sources of income they received in the past 12 months:

- Income from work:
 - Less than \$10,000 – 36.1% (includes 27.1% with no income)
 - \$10,000 to \$24,999 – 9.1%
 - \$25,000 to \$39,999 – 11.4%
 - \$40,000 to \$59,999 – 15.5%
 - \$60,000 or more – 22.2%
 - Don't know – 5.7%
- Income from various benefit, cash assistance, and disability programs:
 - Received no income from those sources – 14.3%
 - Received less than \$20,000 from those sources – 25.2%
 - Received \$20,000 or more in income from those sources – 49.5%
 - Don't know – 11.1%

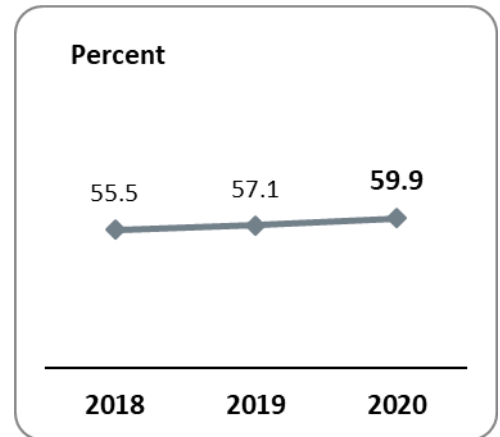
CURRENT LIVING ARRANGEMENT. Home ownership continues to increase. Among warriors, 64.5 percent own homes, with or without a mortgage balance. About 60 percent of all warriors currently own their own homes with an outstanding mortgage, continuing a three-year upward trend (Figure ES-7). Approximately 1 in 4 warriors (24.5%) rent their homes.

HOMELESSNESS. The percentage of warriors who report being homeless or living in a homeless shelter during the past 24 months has declined slowly over the years (4.4% in 2020, 5.3% in 2019, and 5.6% in 2018). Of these homeless warriors, 25.7 percent were homeless for less than 30 days, just under half (45.7%) were homeless for one to six months, 16.4 percent were homeless for seven to 12 months, and 12.2 percent were homeless for 13 to 24 months. Of those who were homeless for more than 30 days, the mean number of days warriors were homeless was 226 (just over seven months). Among those who were homeless, 19.9 percent received government housing assistance.

OVERALL ASSESSMENT OF FINANCIAL STATUS. Warriors were asked whether their financial status (and that of family living with them) is *better now*, the *same*, or *worse* than a year ago. The pandemic impacted warrior's financial status and results show a decline since last year:

- Better now – 24.5% (29.5% in 2019)
- Same – 44.3% (43.1% in 2019)
- Worse – 27.2% (23.3% in 2019)
- Don't know – 4.0% (4.1% in 2019)

Figure ES-7. Warriors Who Own a Home with a Mortgage



WARRIOR SUMMARY

The military background of WWP warriors remained consistent in 2020. Only 6 percent of warriors are on active duty. Almost half of warriors have deployed three or more times during their military career, and most of these deployed warriors (91.6%) did so at least once to a combat area since 9/11. These military experiences and combat exposures have resulted in injuries and health problems, both physical and mental, that are having lingering effects.

Similar to last year, 10.9 percent of warriors reported experiencing military sexual trauma (MST) during their military service, including almost half (43.7%) of female warriors. With the high rate of female warriors experiencing MST, we added questions this year to ask more specifically about warrior experiences with MST. About 60.9 percent of female warriors say they experienced sexual harassment involving military personnel, DoD/Service civilian employees, and/or contractors, and 44 percent reported having experienced sexual assault. Almost 4 percent of male warriors experienced sexual harassment and about 2 percent experienced sexual assault.

Most warriors (88.7%) indicated they were definitely or probably exposed to toxic substances during their military service. Of those, 85.7 percent reported exposure to burn pits and 75.5 percent reported exposure to sand, dust, and particulates. The percentage of warriors who've received treatment for their exposure has increased 6.8 percent over 2019, reaching 16.1 percent in 2020. An additional 31.9 percent have not received treatment but report enrolling in the VA Burn Pit Registry. A new question was added to the 2020 survey, asking what symptoms or illnesses warriors have experienced as a result of toxic exposure. The majority reported muscle and joint pain (87.5%) and sleep disturbances (85.6%), with 40.4 percent reporting neurological problems.

The 2020 Annual Warrior Survey represents a challenging time for the WWP warrior population. The survey was administered from May to June 2020, at the height of the coronavirus pandemic and social distancing measures. Many warriors face the long-term effects of their injuries every day, which can be compounded by the pandemic environment. The survey results reflect these challenges; a substantial percentage of warriors agreed that social distancing is having a negative impact on their mental and physical health and feelings of connection to those around them. Employment has been a major concern among most Americans during this time and for warriors, health challenges only add to these concerns. Those who reported their health status as fair or poor were more likely to report challenges related to employment and finances in comparison with warriors with good, very good, or excellent health status. The warrior unemployment rate has increased significantly over last year reaching 16.5 percent, compared to 11.5 percent in 2019. Overall, one-third of warriors reported that they either have, or expect to, run out of money for themselves or their family's necessities.

Fortunately, warriors have a good support system around them as they deal with these challenges. More than three-quarters (79.9%) of warriors said there are people in their lives whom they can depend on to help them when they really need it. Most warriors also indicated that, specific to COVID-related challenges, they know where to turn to for help if they need it (68.8%). This support system includes the many WWP programs and services offered to warriors and their family members, including connection-focused events that have been offered virtually since March. These events are extremely important to warriors because they provide an opportunity to interact with other veterans who share similar experiences and circumstances. In fact, warriors list interaction with other veterans as one of their top three resources for addressing mental health concerns — along with VA health care and prescription medications.

These interactions, along with the many other benefits provided by WWP programs and services, are vital to the rehabilitation and recovery of warriors as they seek to improve their current health, employment, and financial status while also persevering through these unique times.

Table of Contents

Sections	Page
Executive Summary	i
About the Survey	i
Acknowledgments	i
Top-Line Findings	ii
Warrior Background Information.....	ii
Impact of the COVID-19 Pandemic	v
Physical and Mental Well-Being	vi
Financial Wellness.....	x
Warrior Summary	xiii
Wounded Warrior Project	1
Wounded Warrior Project Survey	2
Survey Objective	2
Survey Content and Development	2
2020 Survey Administration.....	2
2020 Reported Data	3
Organization of Report Findings.....	5
Warrior Background Information	6
Demographic Profile	6
Military Service Experiences	12
Injuries.....	16
Offenses/Convictions Since First Deployment	27
Impact of the COVID-19 Pandemic	28
Warriors and Testing for COVID-19	28
Employment, Child Care and Financial Challenges Related to COVID-19.....	29
Social Connectedness and the Impact of Social Distancing	30
Experience with the VA	31
Impact on Health Care Service Provision and Compensation/Pension Exams	32
Summary.....	32
Physical and Mental Well-Being	34
Mental Health and Daily Activities	34
Physical Health and Daily Activities	44
Health-Related Matters.....	50
Access to Health Care Services.....	57
Loneliness and Social Support.....	66
Resilience and Attitudes	67
Financial Wellness	69
Education.....	69
Employment and Unemployment Status	72
Income.....	80
Living Situation	83
Debt.....	86
Financial Management	89
Overall Assessment of Financial Situation	91
Conclusions	96
References	99
Appendix A Survey Methods and Administration Details	A1
Survey Population	A1

Questionnaire	A1
Data Collection	A2
Survey Help Center	A3
Case Disposition.....	A4
Response Rate.....	A4
Highlights From Google Analytics	A8

Tables

Page

Table 1. Top 10 States with WWP Warriors According to Number of Survey Responses	10
Table 2. Level of Assistance Needed with Daily Activities (Average Week)	24
Table 3. COVID-19 Testing and Test Results and Self-Reported Health Status.....	28
Table 4. Level of Agreement with Statements about COVID-19-Related Challenges	29
Table 5. Level of Agreement with Statements about COVID-19-Related Challenges – Means by Employment and Health Status	30
Table 6. Level of Agreement with Statements about the Impact of Social Distancing.....	30
Table 7. Level of Agreement with Statements about the Impact of Social Distancing – Means by Employment and Health Status	31
Table 8. Level of Agreement with Statements about Information Received from the VA	31
Table 9. Appointments Postponed or Canceled Since the COVID-19 Pandemic Began*	32
Table 10. Frequency in the Past 2 Weeks of Being Bothered by Various Types of Problems	36
Table 11. PCL-5 Items and Mean Scores	38
Table 12. How Often Warriors Experience Difficulties Associated with Sleep	39
Table 13. Frequency of Select Feelings During the Past 4 Weeks	42
Table 14. Percent of Warriors Indicating Physical Injuries Sustained During Service	44
Table 15. Percent of Warriors by Excess and Nonmedical Use of Select Drugs in Past Year	53
Table 16. Level of Agreement with Statements about Facilitators of Physical Activity	55
Table 17. Level of Agreement with Statements about Barriers to Physical Activity	56
Table 18. Reasons for Not Getting Mental Health Care Among Warriors Who Experienced Difficulties, 2019 and 2020	61
Table 19. Reasons for Not Getting Mental Health Care Among Warriors Who Experienced Difficulties and Use the VA as Their Primary Health Care Provider, 2019 and 2020	62
Table 20. Reasons for Not Getting Health Care for Physical Problems Among Warriors Who Experienced Difficulties Getting Care, 2019 and 2020	64
Table 21. Reasons for Not in Getting Health Care for Physical Problems Among Warriors Who Experienced Difficulties and Use the VA as Their Primary Health Care Provider	65
Table 22. Percent of Warriors by Responses to Questions about Current Attitudes	67
Table 23. Estimated Employment, Labor Force Participation, and Unemployment Rates for Non- Active-Duty Warriors (2018–2020)	73
Table 24. Summary Employment Information, by Full-Time and Part-Time Work Status	76
Table 25. Income from Work Amounts for All Warriors and Warriors Working Full Time and Part Time	80
Table 26. High Risk Factors Associated with Homelessness in the Past 24 Months	86
Table A1. List of Survey Communications Sent to WWP Warriors	A2
Table A2. Final Disposition Codes	A5
Table A3. 2020 Response Rates by Variable and Level Using Information Available for Both Respondents and Nonrespondents.....	A6
Table A4. Summary Characteristics of 2020 Base Weights and 2020 Adjusted Weights	A7

Figures

Figure ES-1. Active-Duty Warriors and Warriors with Deployments.....	iii
Figure ES-2. VA Compensation Benefits, Ratings, and Pending VA Claims Among Non-Active-Duty Warriors.....	iii
Figure ES-3. Warriors with VA Health Care Coverage	iv
Figure ES-4. Severe Mental Health Injuries Sustained During Military Service	vii
Figure ES-5. Warrior Body Mass Index Scores (BMI)	vii
Figure ES-6. Growth in Educational Attainment.....	x
Figure ES-7. Warriors Who Own a Home with a Mortgage	xii
Figure 1. Warrior Breakouts by Gender, Age, and Marital Status.....	6
Figure 2. Warrior Breakout by Race/Hispanic Ethnicity	7
Figure 3. Distribution of Warriors by Active-Duty Status.....	8
Figure 4. Distribution of Warriors by Service or Reserve Component	9
Figure 5. Highest Pay Grade Attained	9
Figure 6. Regional Distribution (%) of 2020 WWP Warriors	10
Figure 7. Highest Degree or Level of School Completed.....	11
Figure 8. Number of Deployments	12
Figure 9: Environmental Hazards Exposure and Treatment.....	13
Figure 10: Sources of Environmental Hazards Exposure Among Warriors Indicating Toxic Exposure.....	14
Figure 11: Symptoms and Illnesses Experienced from Environmental Hazards Exposure Among Warriors Indicating Toxic Exposure	15
Figure 12. Injuries and Health Problems During Military Service Since 9/11	17
Figure 13. VA Service-Connected Disability Rating.....	19
Figure 14. Military's PEB Disability Rating	20
Figure 15. Current Types of Health Care Coverage	21
Figure 16. Reasons Warriors Use VA as Their Primary Health Care Provider.....	22
Figure 17. Reasons Warriors Do Not Use VA as Their Primary Health Care Provider	23
Figure 18. Average Hours per Week of Aid and Attendance Needed Among Those Needing Assistance	26
Figure 19. Type of Convictions Since First Deployment for Offenses/Crimes.....	27
Figure 20. Percentage of Warriors Reporting Severe Mental Injuries Sustained During Service.....	34
Figure 21. Percentage Distribution of Warriors by Severity of Depressive Symptomology (PHQ-9)	35
Figure 22. Percentage Distribution of Warriors by PCL-5 Total Score	37
Figure 23. Impact of Emotional Health on Daily Activities	41
Figure 24. Impact of Emotional Health on Desired Productivity.....	41
Figure 25. Health Status Assessment by Mental Injury Sustained During Service	43
Figure 26. Warrior Body Mass Index Scores (BMI).....	45
Figure 27. Physical Activity Limitations	47
Figure 28. Impact of Physical Health on Daily Activities	48
Figure 29. Impact of Physical Health on Desired Productivity	48
Figure 30. Extent to Which Pain Interfered with Normal Work (Work Outside the Home and Housework).....	49
Figure 31. Frequency of Use of Alcoholic Beverages.....	51
Figure 32. Number of Alcoholic Drinks Consumed on a Typical Day	51
Figure 33. Reasons for Electronic Game Play, Among Those Who Play Electronic Games	57

Figure 34. Number of Doctor/Clinic Visits in the Past 3 Months	58
Figure 35. Top 5 Resources and Tools for Coping with Stress or Concerns*	60
Figure 36. Warriors' Perceptions about Their Social Relationships	66
Figure 37. Degree or Level of Schooling Pursued by School Enrollees	69
Figure 38. VA or Government Education Benefits Used by School Enrollees.....	70
Figure 39. Warrior Student Loan Debt	71
Figure 40. Industries in Which Warriors Work.....	74
Figure 41. Level of Satisfaction with Employment, by Full-Time and Part-Time Status	77
Figure 42. Factors Making It Difficult to Obtain Employment or Change Jobs	79
Figure 43. Money Received in Past 12 Months from Various Benefits, Cash Assistance, and Disability Programs.....	81
Figure 44. Number in Household Supported by Household Income.....	82
Figure 45. Current Living Arrangement.....	83
Figure 46. Warrior Experience with Homelessness During the Past 24 Months	85
Figure 47. Current Forms of Debt	87
Figure 48. Monthly Home Mortgage Payments.....	88
Figure 49. Percent Positive Responses to Financial Management Behaviors	90
Figure 50. Financial Situation: Better Now, the Same, or Worse Than a Year Ago?	91
Figure 51. Overall Assessment of Financial Status by Level of Agreement with the Statement "I have or expect to run out of money for myself or my family's necessities."	92
Figure 52. Overall Assessment of Financial Status by Highest Degree/Level of Education	93
Figure 53. Overall Assessment of Financial Status by Labor Force Status.....	94

WOUNDED WARRIOR PROJECT

Wounded Warrior Project® is a nonprofit 501(c)(3) veterans service organization that is transforming the way America's injured veterans are empowered, employed, and engaged in their communities. Because each warrior's path to recovery is unique, WWP serves warriors wherever they are in their journey. The programs and services that WWP provides augment existing resources available at the Department of Defense (DoD), Department of Veterans Affairs (VA), and other agencies and organizations. These services in mental health, physical health, peer connection, career counseling, and financial wellness change lives. Warriors never pay a penny for these services — because they paid their dues on the battlefield.

WWP's direct service programs, advocacy efforts, and collaboration among best-in-practice veteran and military organizations advance WWP's vision: to foster the most successful, well-adjusted generation of wounded service members in our nation's history. WWP's efforts in the legislative arena have led to the creation and passage of legislation that gives veterans and their families the support that they deserve, including the Traumatic Injury Protection Program (TSGLI), which provides much-needed financial support for severely injured service members, and the creation and passage of the Caregiver Legislation (Caregivers and Veterans Omnibus Health Services Act of 2010).

These programs, services, and advocacy efforts are all driven by the greatest needs of warriors – informed by the responses to this survey.

When warriors are ready to start their next mission, WWP stands ready to serve.

WOUNDED WARRIOR PROJECT SURVEY

SURVEY OBJECTIVE

Wounded Warrior Project® designed this survey to assess current warrior demographics, mental and physical well-being, and financial wellness across several outcome domains. WWP maintains a database of the wounded warriors that it serves; eligible warriors include service members and veterans who incurred a physical or mental injury or illness on or after September 11, 2001. WWP has conducted this annual survey since 2010. The first survey was administered to establish baseline data on its warrior membership, and subsequent surveys help to identify trends among WWP warriors and compare their outcomes with those of other military populations. These measures help determine and identify current needs, which WWP uses to inform the programs and services it provides to warriors. The survey is NOT intended to measure the impact of individual WWP programs. Results from the survey represent the WWP warrior population and not the veteran population in general.

SURVEY CONTENT AND DEVELOPMENT

SURVEY CONTENT. The survey measures a series of outcome domains related to the following general topics:

- Background Information about WWP Warriors
- Impact of the Coronavirus Disease 2019 (COVID-19) Pandemic
- Physical and Mental Well-Being
- Financial Wellness

DEVELOPMENT PROCESS. WWP worked with RAND to design the baseline survey administered in 2010. Westat appraised that draft survey and conducted cognitive interviews with four warriors and one caregiver to help finalize the 2010 survey with WWP and RAND.

Over the years, the survey has been revised to collect information on new topics, to gather more details about a topic already covered in the survey, or to update questions related to WWP programs. New questions were added to the 2020 Annual Warrior Survey about exposure to environmental hazards, military sexual trauma, and gaming. This year's survey also included a special section about the Novel Coronavirus. The UCLA 3 Item Loneliness Scale replaced the Social Isolation Scale this year.

WEB INSTRUMENT. The web instrument was pretested across Windows platforms, multiple browsers (Internet Explorer, Edge, Firefox, Safari, and Chrome), iOS and Android mobile devices, and popular screen resolution settings in order to increase survey participation by minimizing access issues.

2020 SURVEY ADMINISTRATION

Westat administered the web survey to 121,981 warriors in WWP's member database as of March 2020 (up from 109,969 warriors in 2019). Data collection continued for seven weeks from May 5 to June 16, 2020. All communications with the wounded warriors were via email and included a prenotification, survey invitation, and nine reminder emails. Reminder emails were

only sent to survey nonrespondents. As an incentive to promote higher survey response, those who answered and submitted the survey were offered a choice of either a phone wallet or 3-in-1 charging cable. Nonmonetary incentives such as tumbler cups, drawstring packs, flashlights, key rings, tactical patches, and Swiss Army multi-tools have been offered to survey participants since 2011.

The final response rate for 2020 was **23.2** percent (28,282 completed surveys among 121,980 eligible warriors in the survey population), compared with 32.7 percent in 2019 and 33.7 percent in 2018. Appendix A includes more details on survey methods and administration. Westat's WWP Survey Help Center provided technical assistance by phone and email to warriors about the survey throughout data collection.

2020 REPORTED DATA

WWP SURVEY. The estimates provided in the findings section of this report, including estimates that appear in the executive summary, are based on weighted data, unless specified otherwise. The survey results were adjusted to reduce bias in survey estimates that might occur due to survey nonresponse. Such bias is likely to occur if there is a relationship between response propensity and the survey data. For example, if employment status of nonrespondents was systematically different from the employment status of respondents, this difference could have introduced bias.

When calculating weights, statisticians need information about both respondents and nonrespondents to determine if the characteristics of respondents are different from those of nonrespondents. Since 2013, there has been sufficient information in the WWP warrior database on military status (active duty versus not active duty), age, and geographic region to use those variables to adjust the collected survey data for survey nonresponse. More details on the weighting process used for the 2020 survey are included in Appendix A.

The data set used for analysis includes data for the 28,282 warriors who completed a survey. For a survey to be considered “complete,” the respondent had to answer at least 11 of the 22 core demographic questions as well as 23 of the 50 core non-demographic questions. Survey responses with some answers but not enough to be considered complete are considered a “partial” and were excluded from the analysis. Core questions were those that all warriors had a chance to answer (i.e., they were not prevented from answering them because of programmed skips). Additional information on core items is located in Appendix A.

Whenever percentages were calculated, missing responses were removed from the denominators. Denominators thus vary across questions because warriors could choose to skip any questions they did not want to answer. Missing responses also include items that were skipped according to questionnaire programming. In addition, there may be slight differences (about 0.1 or 0.2 percentage points) due to rounding between estimated percentages for *combined* response options presented in the text and response percentages that appear in the figures.

The estimated data we report represent the findings for WWP warriors surveyed in 2020, 2019, and 2018. Most, but not all, figures and tables include data for all three years.

Please note that the sample sizes have increased each year. The 2020 survey population (121,981) was larger than in 2019 (109,968) and 2018 (98,055).

In the text, we highlight changes of about 5 percentage points or more between the 2020 and 2019 survey estimates, as well as some patterns of change since 2018 and other notable changes in the estimates for WWP priorities. The data reflect the physical and mental well-being, as well as the economic well-being and demographic characteristics, of WWP warriors in each year. As noted, WWP uses findings from the yearly data when developing and improving its strategic plan for WWP programs and services for warriors and their family members.

U.S. BUREAU OF LABOR STATISTICS COMPARISON DATA. The U.S. Bureau of Labor Statistics (BLS) collects data on veterans as part of the Current Population Survey (CPS) — a monthly survey of about 60,000 households — as well as through a monthly supplement on special topics, such as veterans with disabilities. The supplement is administered annually in August. Veterans are identified in the BLS data and reports by their service period. In various sections of this report, we include 2019 BLS data on Gulf War II-era veterans — defined as those who have served in the military since September 2001 — as well as some BLS comparison data for all veterans and nonveterans. Veterans who served in more than one service period are classified in the most recent one. Please note that the WWP survey population includes not just veterans, but also active-duty service members (6.0% in 2020) who have been injured during military service since September 11, 2001. This difference in survey populations should be kept in mind when comparing results with the BLS data, noting that the WWP population is a subpopulation of all post-9/11 veterans.

We also include BLS data on employment statistics for persons with and without a disability in the civilian, noninstitutionalized population, ages 16–64. Sources for BLS data appearing in this report are cited in the text and in the References.

COMPARISON DATA FOR PHYSICAL AND MENTAL HEALTH SCALE SCORES. A variety of sources were used for comparison data on physical and mental health status including the Department of Defense Millennium Cohort (MC) study (the initial 2001 cohort population cited in a few places in this report included U.S. service members, many of whom had never been deployed or incurred a service-connected injury) and the Department of Defense Survey of Health Related Behaviors. More recent sources of comparison data are cited as well.

RAND and Boston University provided information on the scales used in the WWP survey, including instructions or programming code for calculating scores, and provided information on sources of comparison data. Citations and references are included for sources of comparison data, which also provide information about study populations and sampling/research methods.

ORGANIZATION OF REPORT FINDINGS

The remainder of this report contains findings from the survey results. They are presented as follows:

Warrior Background Information

- Demographic Profile
- Military Service Experiences
- Injuries
- Offenses/Convictions Since First Deployment

Novel Coronavirus

Physical and Mental Well-Being

- Mental Health and Daily Activities
- Physical Health and Daily Activities
- Health-Related Matters
- Access to Health Care Services
- Loneliness and Social Support
- Resilience and Attitudes

Financial Wellness

- Education
- Employment and Unemployment Status
- Income
- Living Situation
- Debt
- Financial Management
- Overall Assessment of Financial Status

Conclusions

Appendix

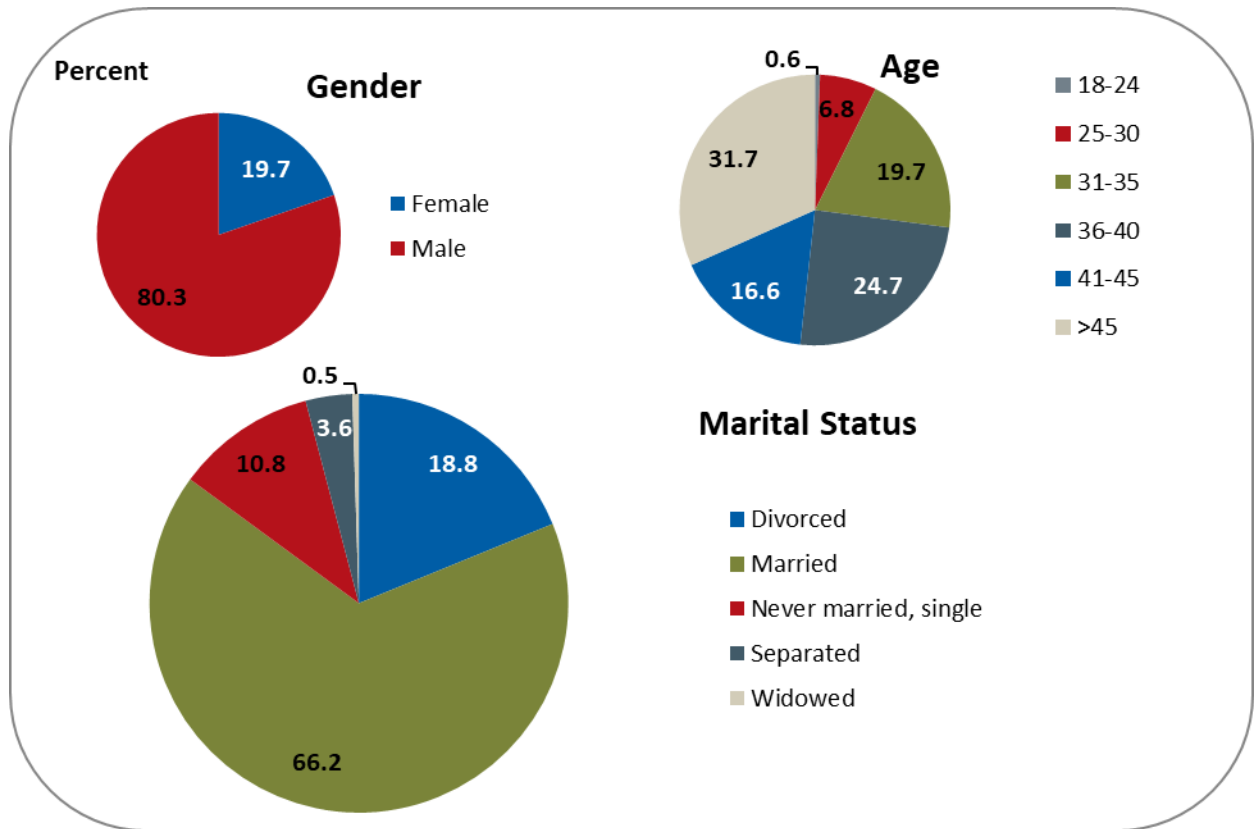
- Appendix A: Survey Methods and Administration Details

WARRIOR BACKGROUND INFORMATION

DEMOGRAPHIC PROFILE

GENDER, AGE, MARITAL STATUS. The 2020 demographic profile for warriors is similar to the 2019 and 2018 profiles. Most warriors are male (80.3%), and the majority of warriors are also currently married (66.2%) (Figure 1). Their mean age is 43.0 years old (42.0 years old in 2019), with the largest age group being 45 years old or older (31.7%). Approximately 27% of WWP warriors are 35 years old or younger.

Figure 1. Warrior Breakouts by Gender, Age, and Marital Status



BLS, Current Population Survey, Annual Averages 2019

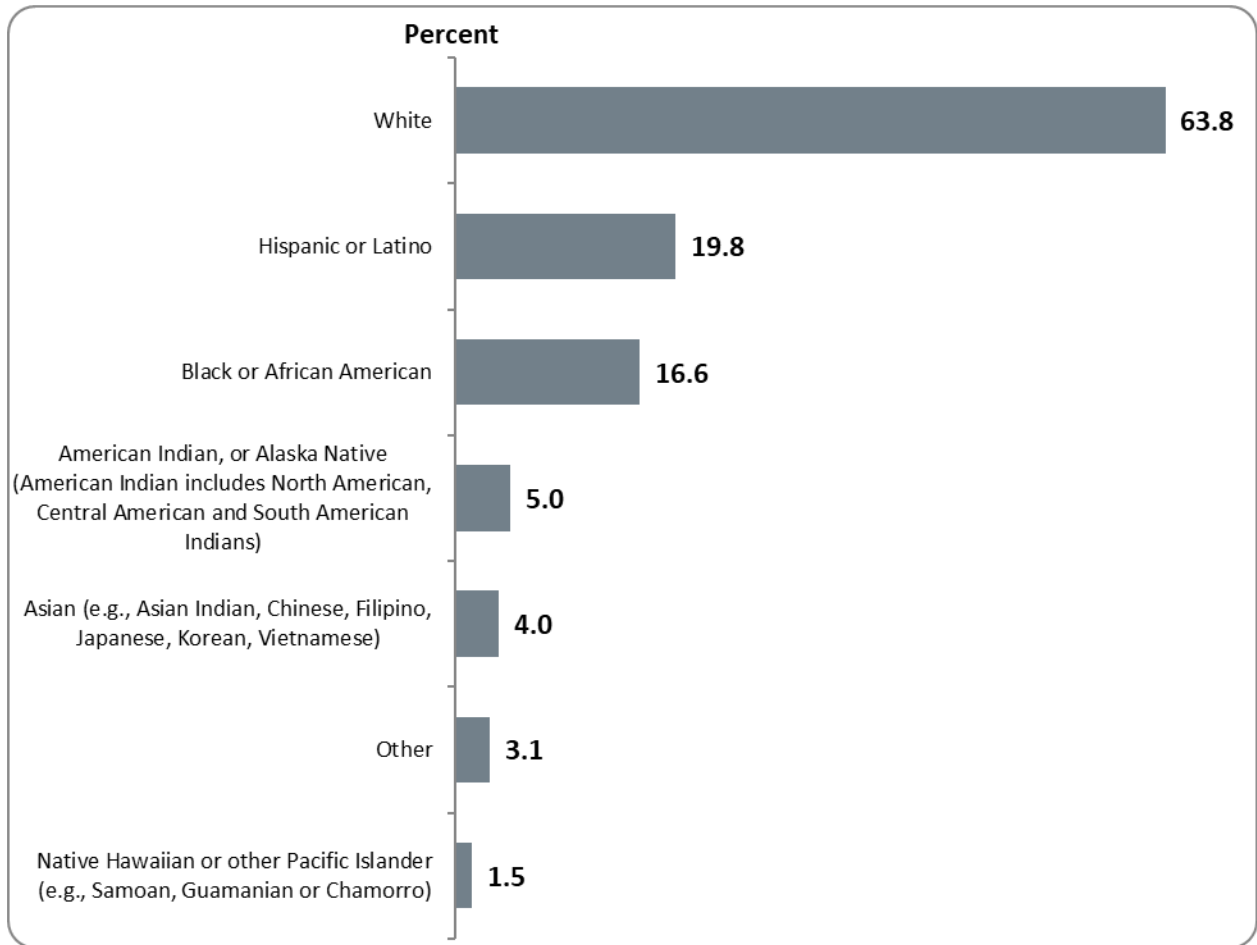
Gulf War II-era veterans: Served since September 2001

- 83.2 percent are male and
- 42.6 percent are younger than 35 years old

Source: August 2019 Veterans Supplement (BLS, March 2020, USDL-20-0452); Tables 1 and 2A <http://www.bls.gov/news.release/pdf/vet.pdf>.

RACE/ETHNICITY. Most warriors are white (63.8%; Figure 2). Eleven percent of warriors (11.1%) reported more than one race/ethnicity category.

Figure 2. Warrior Breakout by Race/Hispanic Ethnicity



NOTE: Percentages do not sum to 100% because warriors could mark more than one race/ethnicity category.

BLS, Current Population Survey, Annual Averages 2019

Gulf War II-era veterans: Served since September 2001

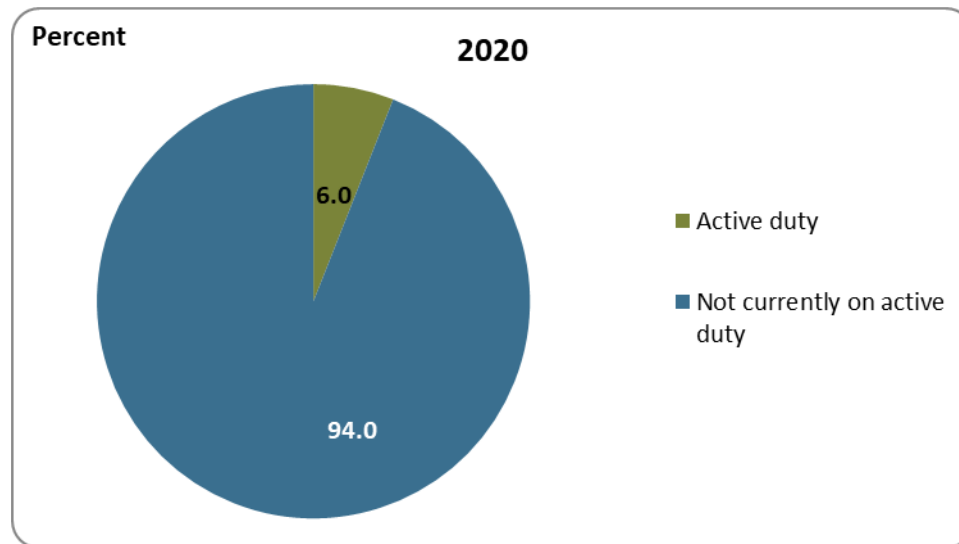
- 76.5 percent—White
- 15.6 percent—Black
- 12.5 percent—Hispanic

NOTE: Persons whose ethnicity is identified as Hispanic or Latino could be of any race.

Source: Table 1 (<http://www.bls.gov/news.release/pdf/vet.pdf>)

MILITARY DUTY STATUS. The proportion of active-duty service members among warriors is about the same as 2019, though it has been declining over the years — 6.0 percent in 2020 (Figure 3), compared with 6.5 percent in 2019 and 6.4 percent in 2018. This decrease should be expected, as deployment to combat operations continues to decline across the Armed Forces, and thus combat-related injuries and illnesses among active-duty service members continue to decline as well.

Figure 3. Distribution of Warriors by Active-Duty Status



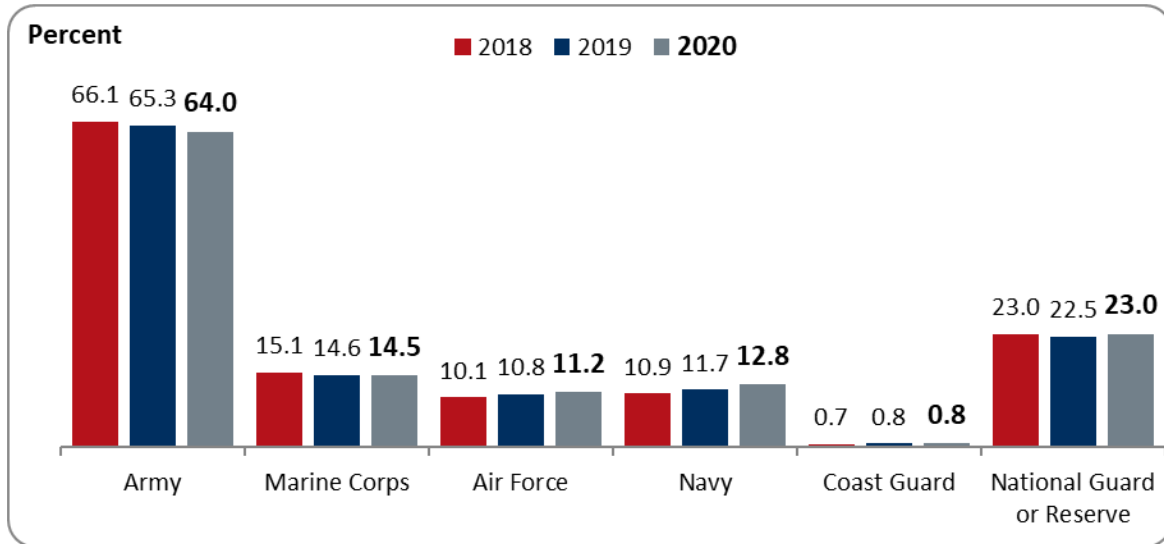
More than half of 2020 warriors (53.6%) who are not on full-time active duty last served on active duty in or before 2012. The percentages per year for the year warriors last served were highest for 2012 (9.2%), 2013 (9.8%), and 2014 (9.7%).

Among those currently on active duty, 68.7 percent are active-duty service members and 31.3 percent are activated National Guard or Reserve members. Among those not currently on active duty, 4.4 percent are members of the National Guard or Reserve. Warriors not on active duty and not members of the National Guard or Reserve (94.0%) reported their status as follows:

- Separated or discharged – 41.6%
- Retired for medical reasons – 40.9%
- Retired for nonmedical reasons – 17.5%

SERVICE BRANCH. Two-thirds of warriors (64.0%) have served in the Army and 14.5 percent in the Marine Corps (Figure 4). More than 1 in 5 warriors (23.0%) have served in the National Guard or Reserves. In addition, 23.5 percent of warriors have served in more than one branch or component of the armed forces.

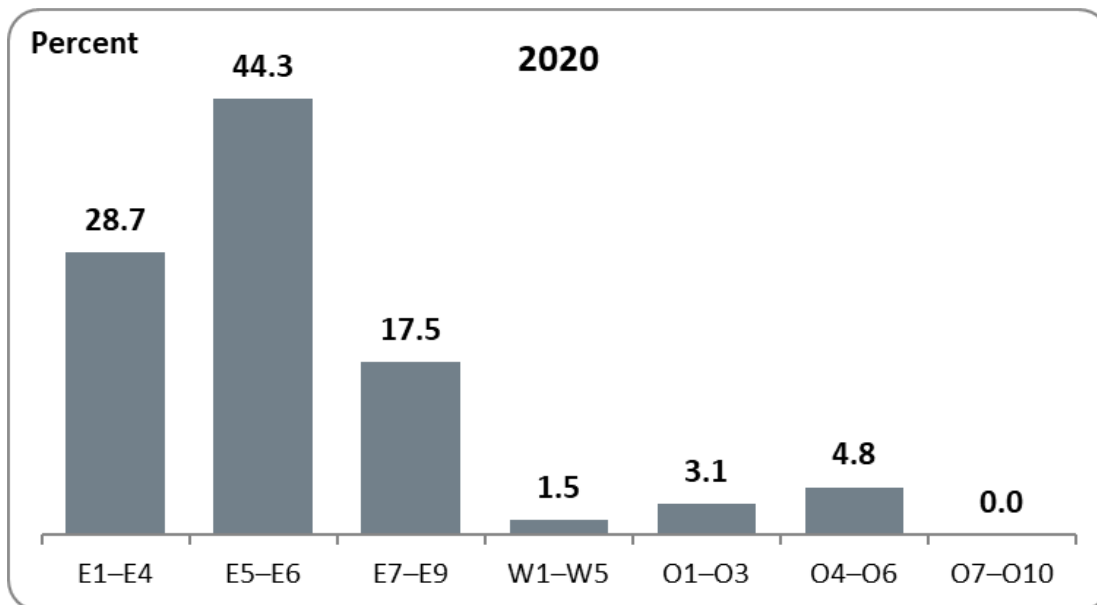
Figure 4. Distribution of Warriors by Service or Reserve Component



NOTE: Percentages do not sum to 100 because warriors could have served in more than one service.

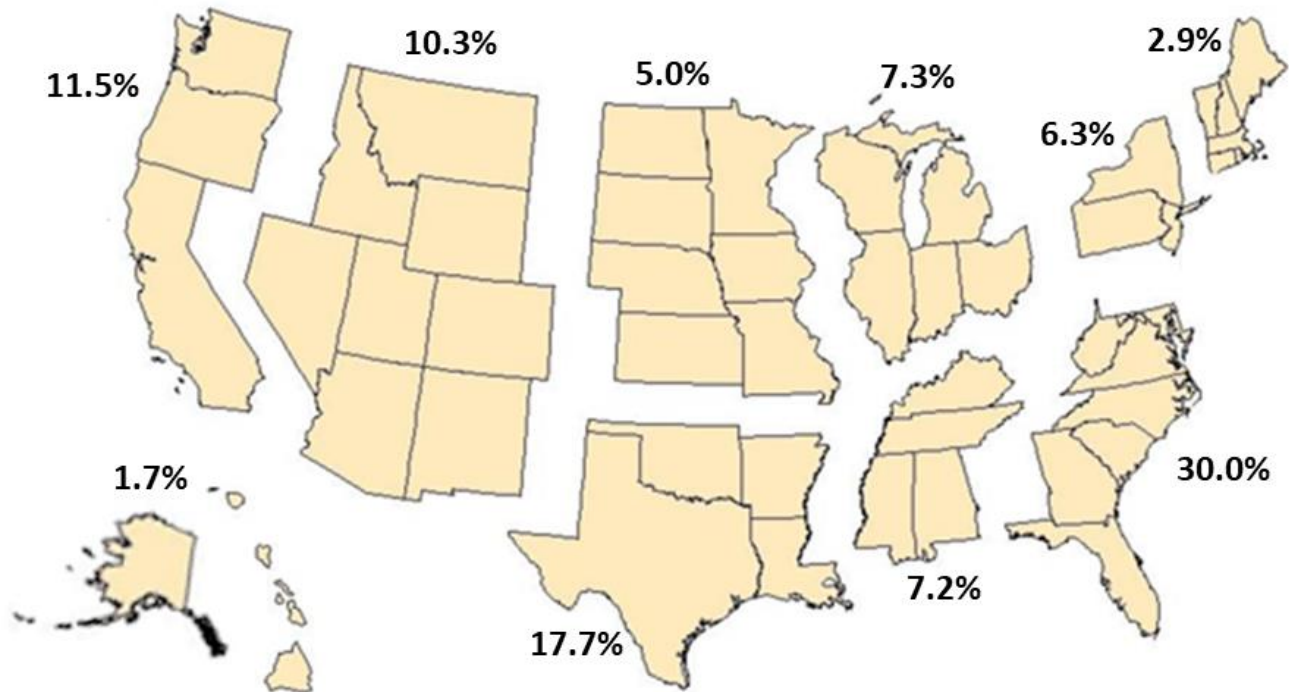
HIGHEST PAY GRADE. Highest pay grades achieved by WWP warriors indicate that most are/were enlisted personnel (90.5%), including 61.8 percent with the equivalent rank of sergeant or above (E5–E9). Only 1 percent (1.5%) of warriors obtained the rank of warrant officer, and 8.0 percent are/were commissioned officers (Figure 5).

Figure 5. Highest Pay Grade Attained



GEOGRAPHIC RESIDENCE. Almost a third of wounded warriors (30.0%) live in the South Atlantic region (Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, and the District of Columbia), 17.7 percent live in the West South Central region (Arkansas, Louisiana, Oklahoma, and Texas), 11.5 percent in the Pacific region (California, Oregon, and Washington), and 10.3 percent in the West South Central region (Arkansas, Louisiana, Oklahoma, and Texas), 11.5 percent in the Pacific region (California, Oregon, and Washington), and 10.3 percent in the West South Central region (Arkansas, Louisiana, Oklahoma, and Texas), 11.5 percent in the Pacific region (California, Oregon, and Washington), and 10.3 percent in the West South Central region (Arkansas, Louisiana, Oklahoma, and Texas); Figure 6).

Figure 6. Regional Distribution (%) of 2020 WWP Warriors



The 10 states with the highest numbers of WWP warriors according to survey responses were the same as in 2019 (Table 1). More than half (57.1%) of warriors currently reside in these 10 states.

Table 1. Top 10 States with WWP Warriors According to Number of Survey Responses

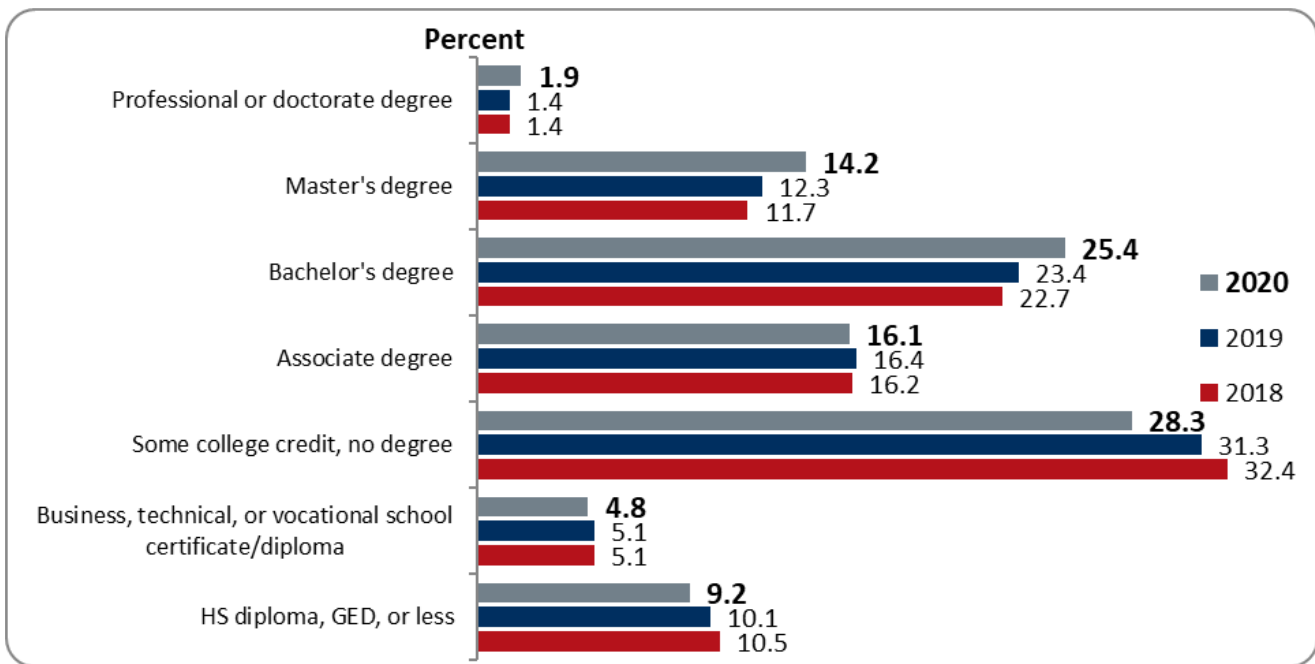
State	2020 Count	2019 Count
1. Texas	16,832	14,841
2. Florida	11,548	10,121
3. California	8,956	8,163
4. North Carolina	6,350	5,904
5. Georgia	6,022	5,360
6. Virginia	5,472	4,833
7. Colorado	4,212	3,777
8. Arizona	3,755	3,425
9. Tennessee	3,512	3,062
10. Washington	3,302	3,063

EDUCATION. Current level of educational attainment varies among warriors, with the largest group having some college credit, but no degree (28.3%; Figure 7). Other groups include:

- Associate degree or some college – 44.4%
- Bachelor’s, master’s, or professional/doctorate degree – 41.5%
- No college credit – 14.0% (but 4.8% of these have a business, technical, or vocational school certificate/diploma)

The 2020 results are similar to those in 2019 and 2018; however, the percentage of warriors with a bachelor’s degree or higher has continued to increase since 2018 as warriors continue to pursue further education.

Figure 7. Highest Degree or Level of School Completed



BLS, Current Population Survey, Annual Averages 2019

Gulf War II-era veterans (25 years and over): Served since September 2001

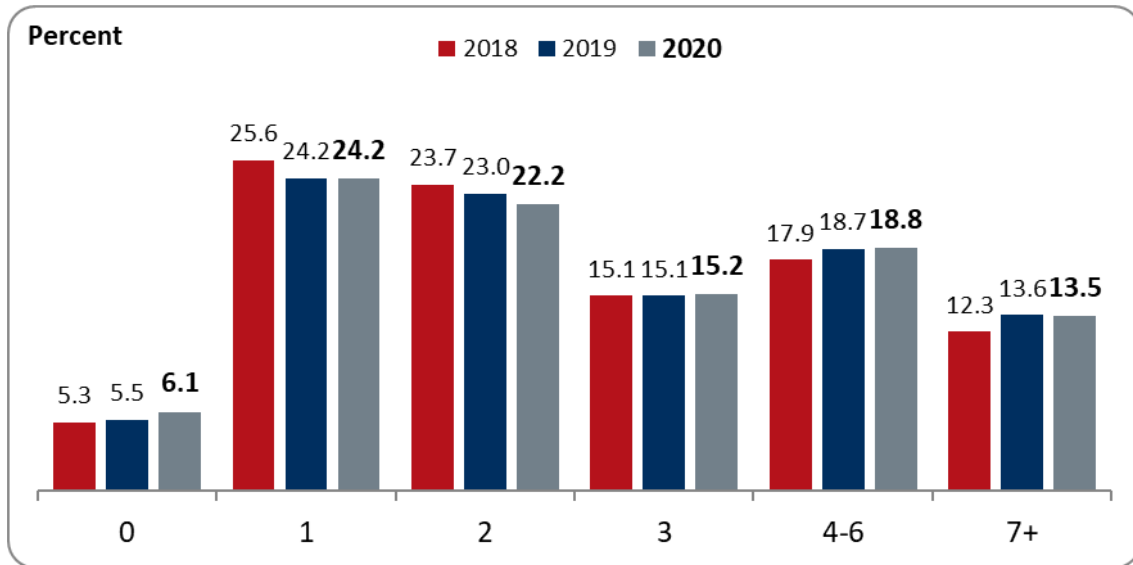
- 36.9 percent—Bachelor’s degree or higher (nonveterans: 35.3%)
- 39.0 percent—Associate degree or some college (nonveterans: 25.2%)
- 24.0 percent—No college credit — had a high school diploma, GED, or less (nonveterans: 38.4%)

Source: Table 3 (<http://www.bls.gov/news.release/pdf/vet.pdf>)

MILITARY SERVICE EXPERIENCES

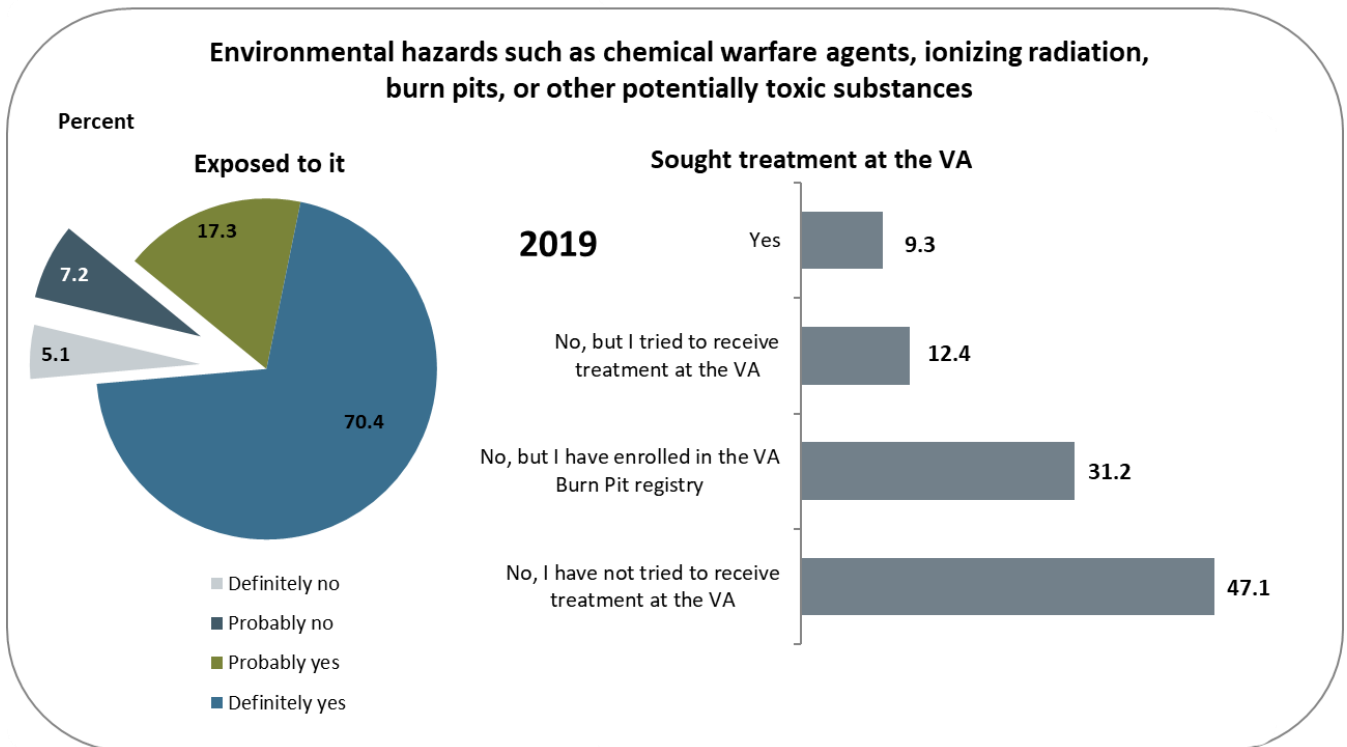
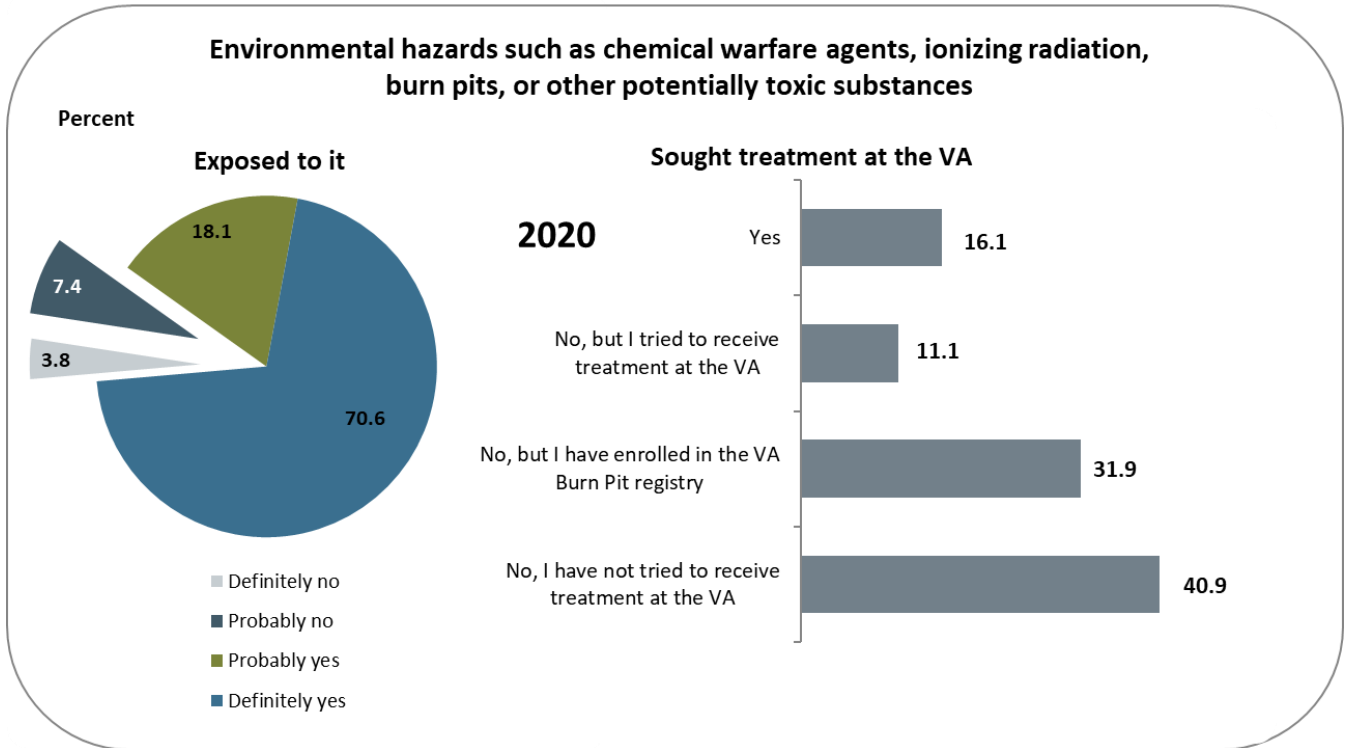
TOTAL NUMBER OF DEPLOYMENTS. Nearly half of warriors (47.5%) have deployed three or more times (includes training deployments), compared with 47.3 percent in 2019. Slightly less than half of warriors (46.4%) have deployed once or twice, and 6.1 percent have never deployed (Figure 8).

Figure 8. Number of Deployments



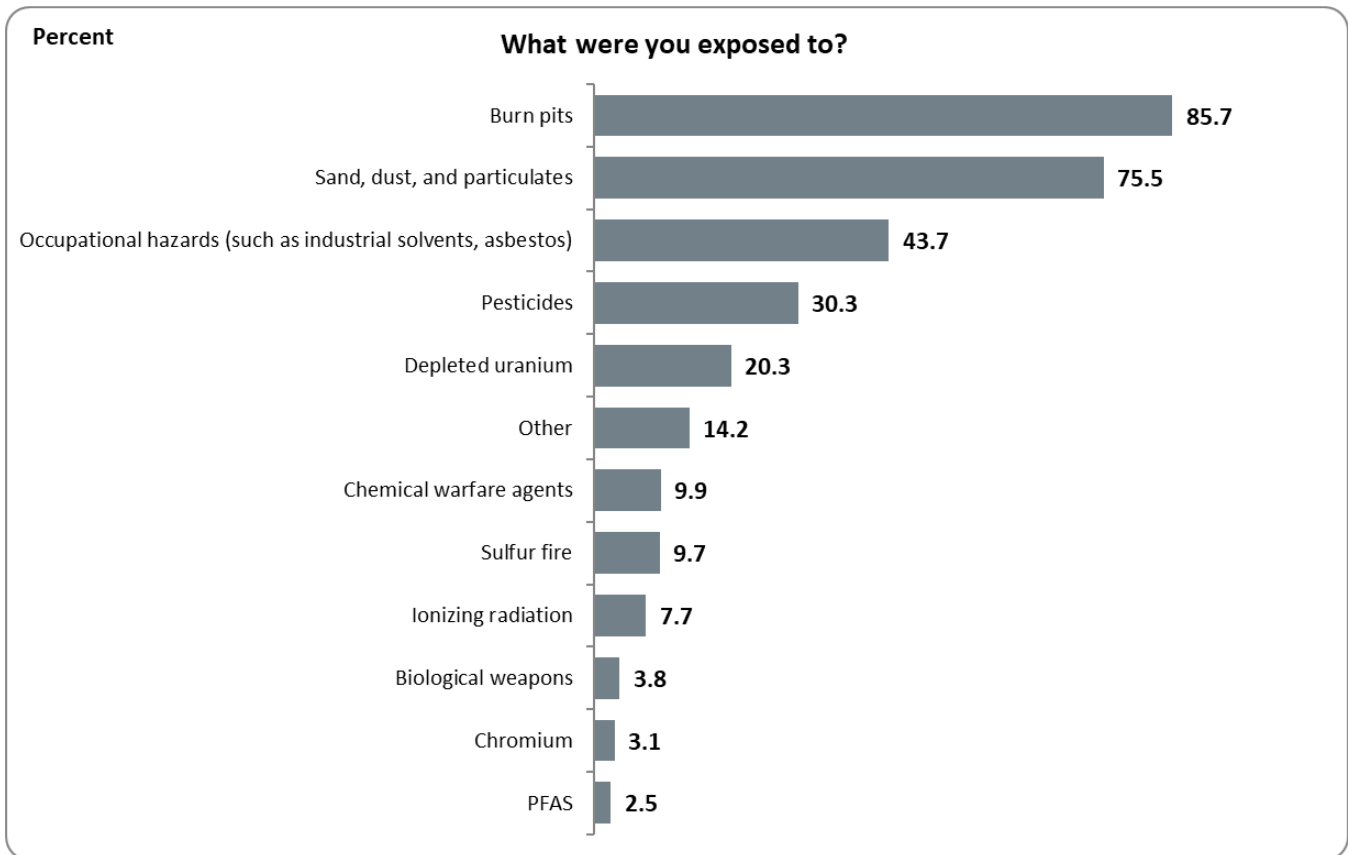
TOXIC EXPOSURE. A set of questions asked warriors if they were exposed to environmental hazards such as chemical warfare agents, ionizing radiation, burn pits, or other potentially toxic substances during their military service. In 2020, a majority (70.6%; Figure 9) of warriors reported they definitely had been exposed to hazardous chemicals. However, only 16.1 percent of those definitely or probably exposed said they had received treatment for their exposure at the VA (an increase from 9.3% in 2019). Slightly more than 30 percent (31.9%) did not receive treatment but are enrolled in the VA Burn Pit registry. Warriors who answered *Probably Yes* or *Definitely Yes* to whether they had been exposed to environmental hazards during their military service were more likely to rate their health as *Poor* or *Fair* (49.6%), compared to those who indicated *Probably No* or *Definitely No* (38.8%).

Figure 9: Environmental Hazards Exposure and Treatment



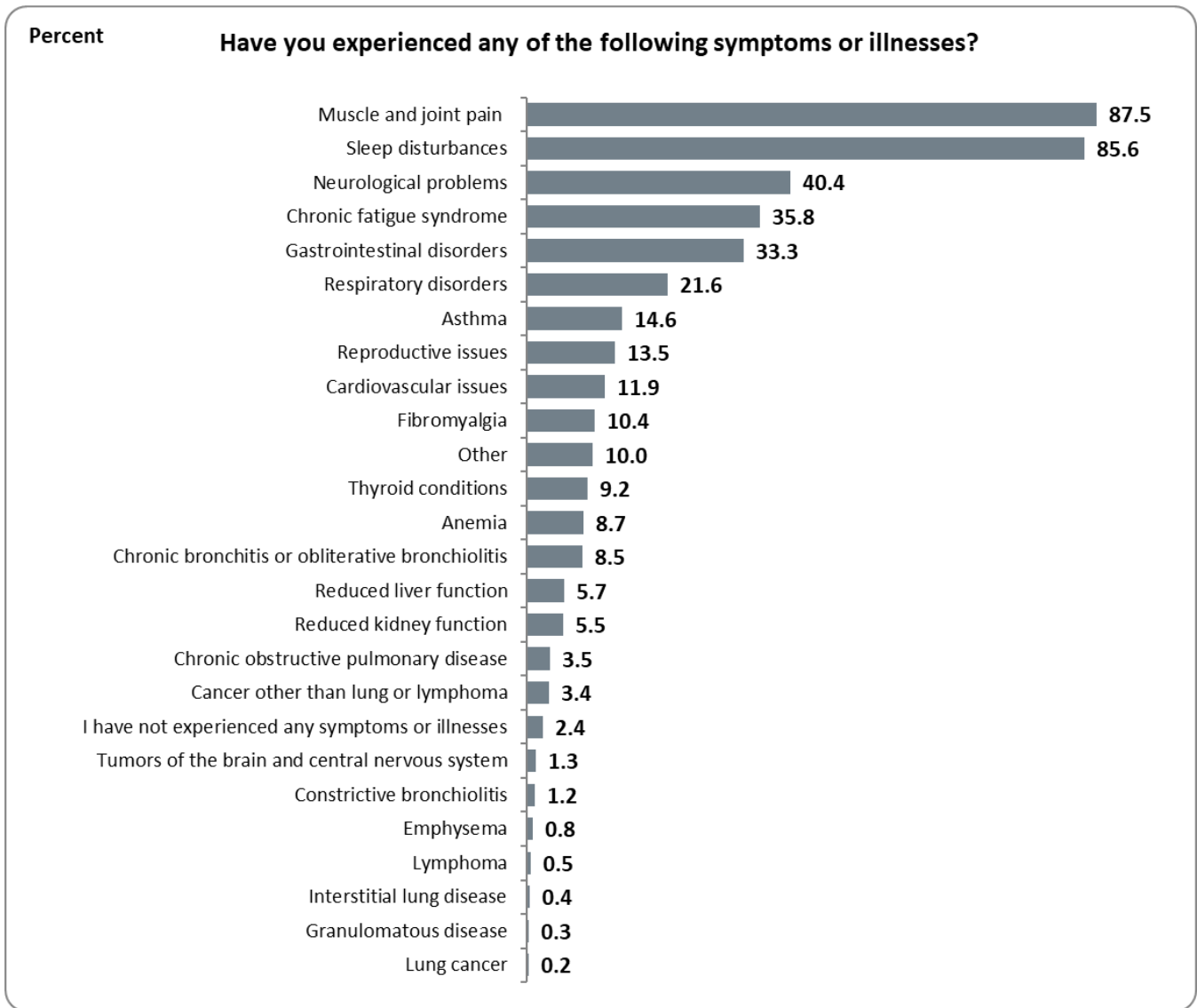
Follow-up questions about toxic exposure were added to the 2020 survey in order to further examine what warriors were exposed to and symptoms or illnesses they experienced as a result. These two questions were only asked of respondents who indicated they *Probably Yes* or *Definitely Yes* were exposed to environmental hazards during their military service. The largest sources of exposure were burn pits (85.7%) and sand, dust, and particles (75.5%). Figure 10 shows the environmental hazard sources respondents were exposed to. The most common symptoms they experienced include muscle and joint pain (87.5%) and sleep disturbances (85.6%). Less than 3 percent of warriors (2.4%) indicated they have not experienced any symptoms or illnesses. All the symptoms or illnesses are presented in Figure 11 on the following page.

Figure 10: Sources of Environmental Hazards Exposure Among Warriors Indicating Toxic Exposure



NOTE: Percentages do not sum to 100 because respondents could check more than one source of exposure.

Figure 11: Symptoms and Illnesses Experienced from Environmental Hazards Exposure Among Warriors Indicating Toxic Exposure



NOTE: Percentages do not sum to 100 because respondents could check more than one symptom or illness.

INJURIES

INJURIES AND HEALTH PROBLEMS EXPERIENCED DURING MILITARY SERVICE. The list of severe injuries and health problems, including physical injuries that warriors experienced during their service after September 11, 2001, is displayed in Figure 12.

Nearly all (99.1%) warriors experienced at least one severe injury or health problem during their post-9/11 military service, and multiple injuries were common. Among those with injuries or health problems, more than three-fourths (80.0%) experienced between four and 12 severe injuries or health problems.

Approximately 1.6 percent of warriors indicated that they had an amputation while serving, or as a result of serving, in the military. Almost two-thirds of warriors (64.4%) who have had an amputation have a prosthesis. Warriors most commonly have their prosthetic work done at places other than VA Medical Centers or Department of Defense facilities (38.1%).

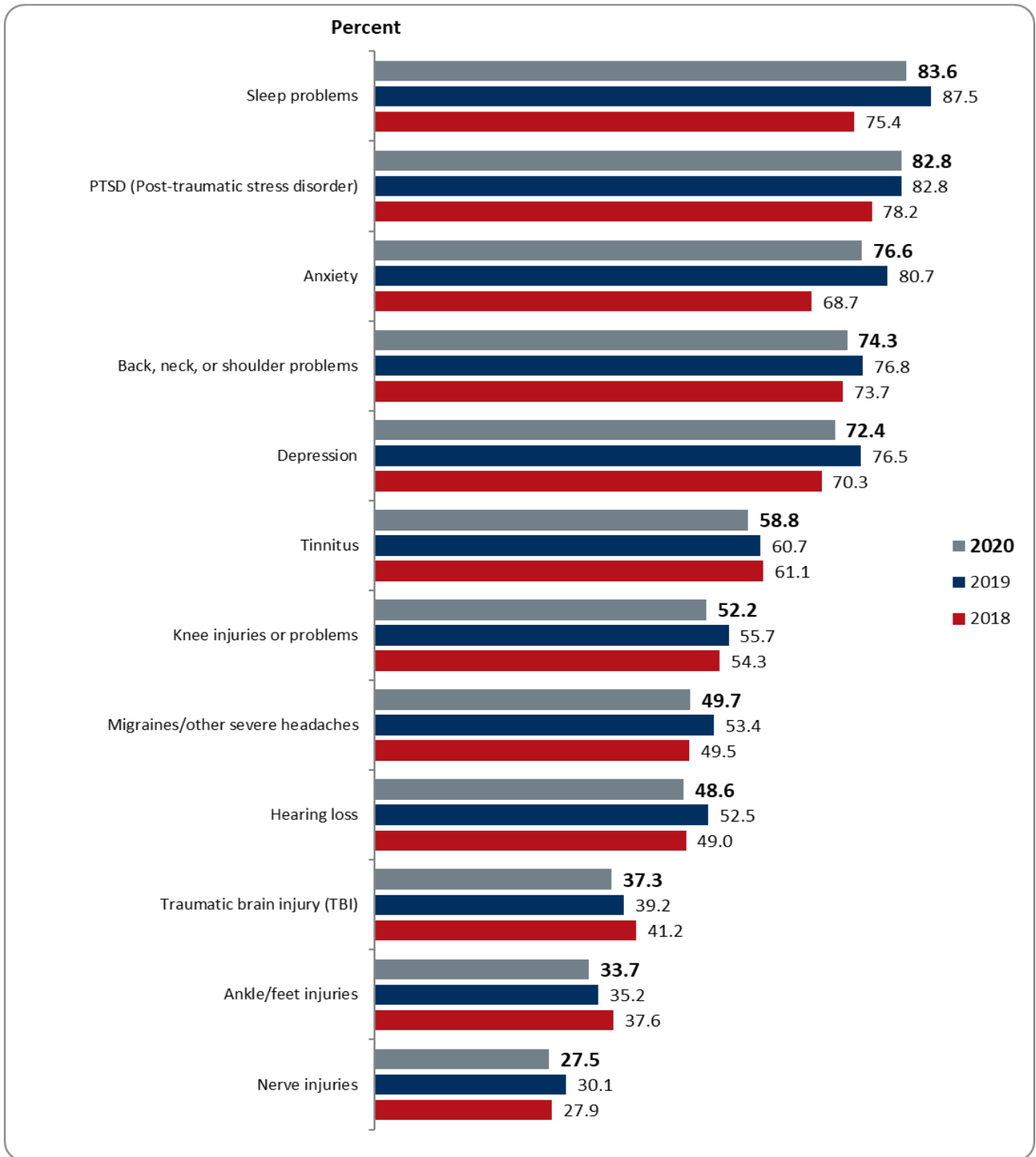
Approximately 30 percent of warriors have their prosthetic work done at VA Medical Centers only (30.2%), and an additional 16 percent (15.5%) have their prosthetic work done at Department of Defense facilities only.

Self-reported post-traumatic stress (PTSD) disorder continues to rank high on the list of health problems experienced by warriors (82.8%). That condition is likely associated with the high percentage of warriors who report sleep problems (83.6%). Delayed-onset PTSD has also been diagnosed among veterans, even years after exposure to traumatic events, and may also be a factor in the high rates of PTSD that are still being reported by warriors who may be 10–15 years removed from combat. The percentage of warriors who reported coping with anxiety was high in 2020, consistent with previous years (76.6% in 2020, 80.7% in 2019, and 68.7% in 2018). The percentage of warriors suffering from depression has also remained high and fairly stable (72.4% in 2020, 76.5% in 2019, and 70.3% in 2018). Nearly 40 percent of warriors continue to report traumatic brain injury (37.3% in 2020, 39.2% in 2019, and 41.2% in 2018).

Many warriors experienced severe physical injuries and health problems during their military service after September 11, 2001. As in 2019, relatively high percentages of warriors experienced back, neck, or shoulder problems (74.3%); tinnitus (58.8%) and hearing loss (48.6%); knee injuries or problems (52.2%); and migraine/other severe headaches (49.7%).

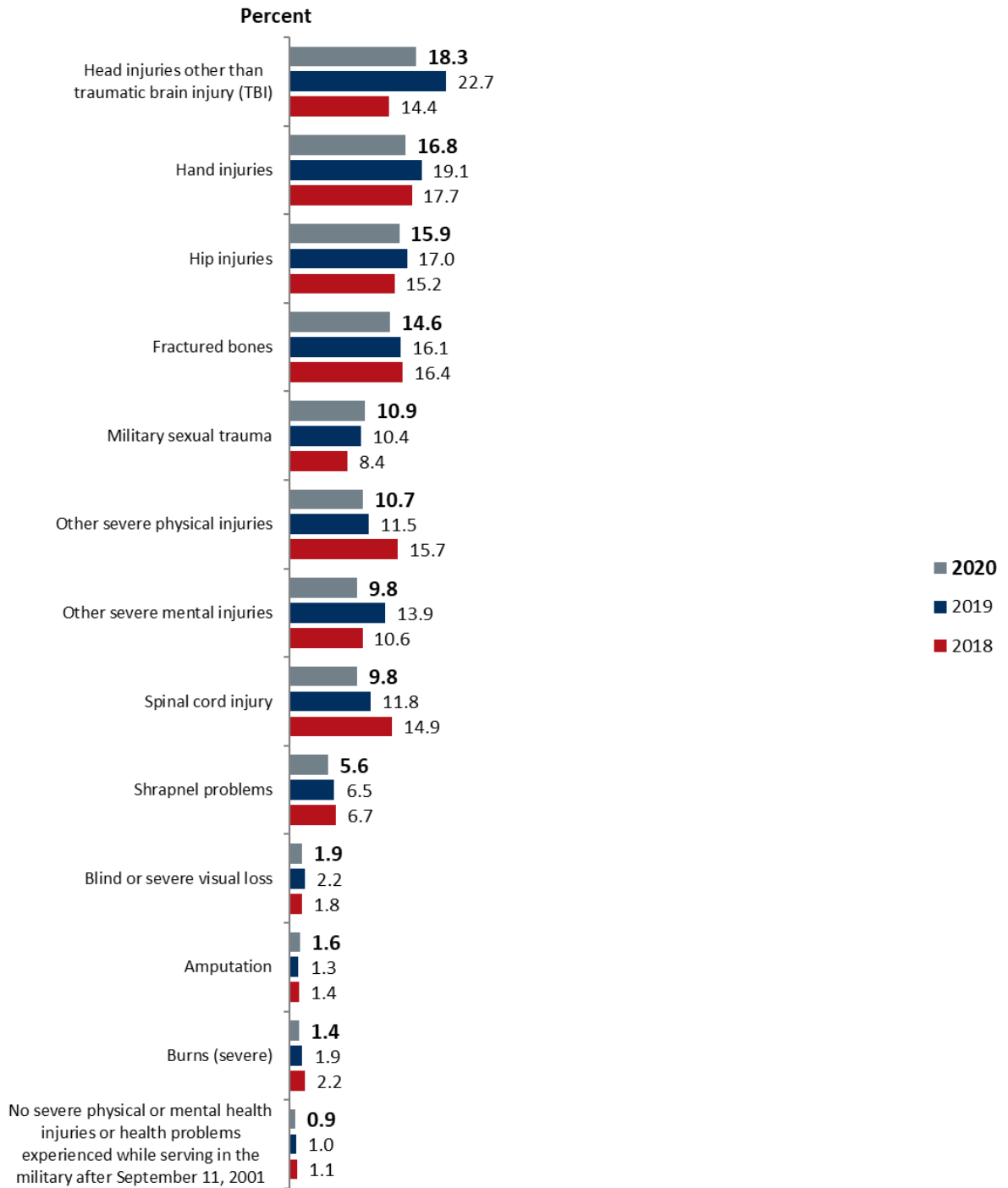
Military sexual trauma (MST) was reported by 10.9 percent of warriors, including almost half (43.7%) of female warriors. More than 15 percent of warriors (16.0%) reported they had experienced sexual assault or sexual harassment involving military personnel, DoD/service civilian employees, and/or contractors. Nearly two-thirds of female warriors (63.0%) experienced sexual assault or harassment, compared with 4.5 percent of male warriors. Among all warriors, 15.1 percent experienced uninvited and unwanted sexual attention, such as touching, cornering, pressure for sexual favors, or verbal remarks (60.9% of all female warriors; 3.9% of all male warriors). Additionally, about 10 percent (10.5%) of all warriors experienced the force or threat of force to have sexual contact against their will (44.1% of all female warriors; 2.2% of all male warriors).

Figure 12. Injuries and Health Problems During Military Service Since 9/11



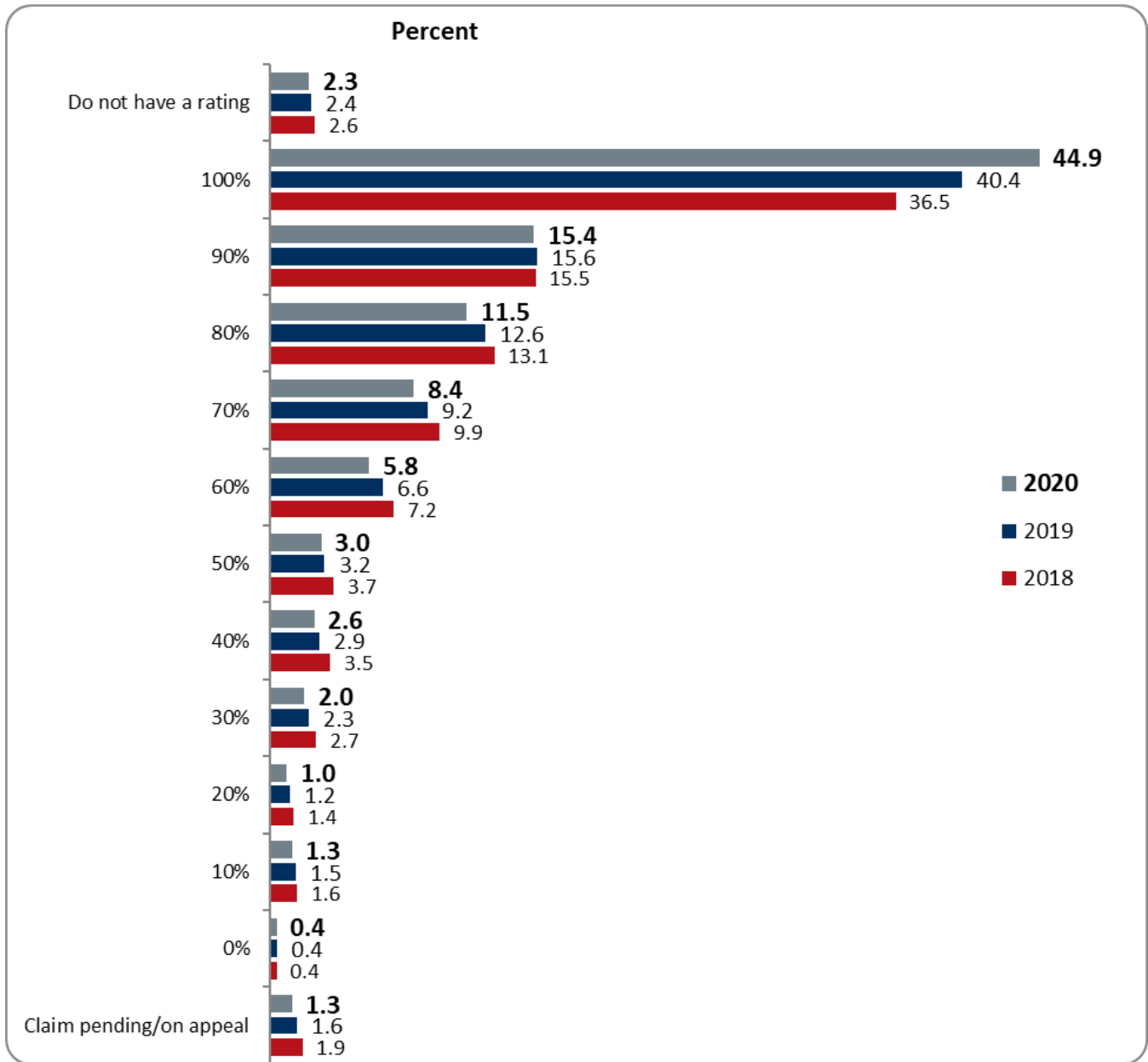
(Continues on next page)

Figure 12. Injuries and Health Problems During Military Service Since 9/11 (continued)



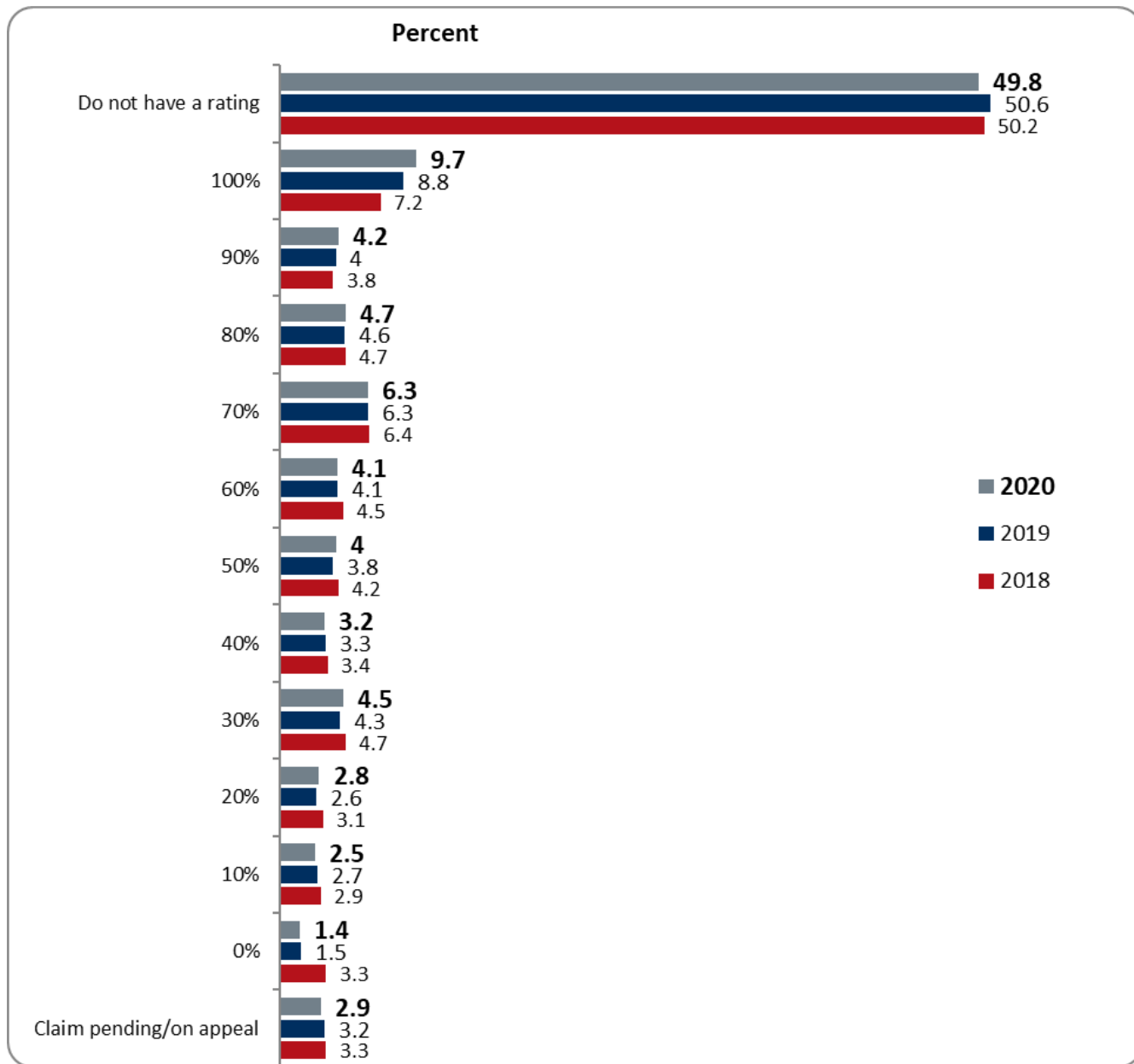
COMPENSATION BENEFITS AND RATINGS. The 2018, 2019, and 2020 analysis of VA compensation benefits excluded current active-duty service members because they are not yet eligible to receive them. The percentage of warriors receiving VA compensation benefits is now 95.2 percent, similar to 94.6 percent in 2019 and 94.4 percent in 2018. The percentage with disability ratings of 100 percent also increased — 44.9 percent, compared with 40.4 percent in 2019 and 36.5 percent in 2018. The 100 percent disability group continues to be the largest category of recipients (Figure 13).

Figure 13. VA Service-Connected Disability Rating



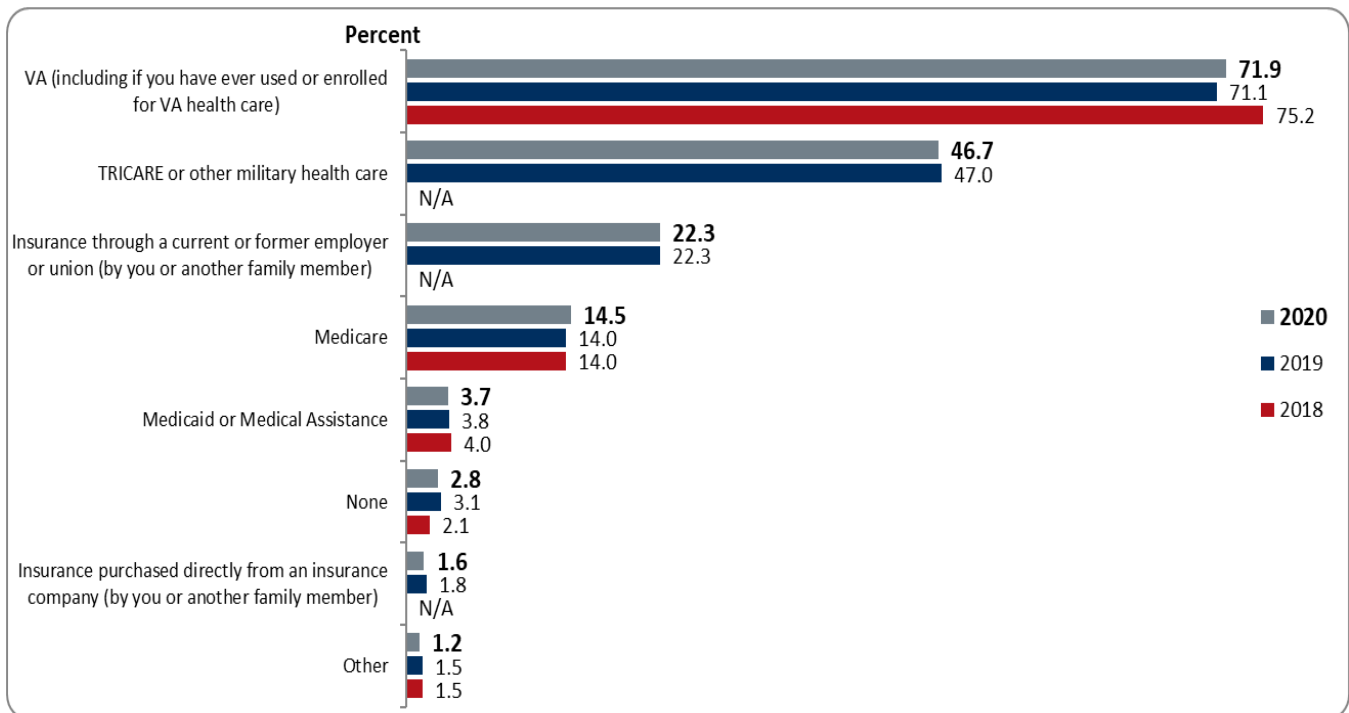
The PEB (Physical Evaluation Board) disability ratings continue to remain less common than VA ratings among warriors. In 2020, half of the warrior population (49.8%) reported that they do not have a PEB disability rating, compared with 2.3 percent who do not have a VA disability rating, which excludes active-duty service members and warriors with a VA claim pending or on appeal (Figure 14). The percentage of warriors with a PEB rating of 80 percent or higher (18.6%) is similar to that in 2019 (17.4%).

Figure 14. Military’s PEB Disability Rating



TYPE OF HEALTH CARE COVERAGE. The percentage of warriors with VA health care coverage is about the same as last year (71.9% in 2020, compared with 71.1% in 2019 and 75.2% in 2018; Figure 15). The next most common types of health insurance among warriors are TRICARE or other military health care (46.7%). About 3 percent of warriors (2.8%) have no health insurance. More than half of warriors with health care coverage have two or more types of health insurance (51.5%, compared with 51.3% in 2019 and 51.7% in 2018).

Figure 15. Current Types of Health Care Coverage



More than 7 in 10 warriors who have VA and another type of health coverage use VA as their primary health care provider (74.0%). The survey asked warriors who reported using the VA as their primary health care provider why they chose to do so (Figure 16). The most common reasons were that warriors can get care for a service-connected disability (53.2%), because they feel they are entitled to VA health care (50.3%), and the prescription benefits VA provides (43.4%).

In contrast, the survey also asked questions to better understand the reasons warriors who have access to the VA for primary care do not use the VA as their primary health care provider (26.0%; Figure 17). Warriors attributed thinking VA health care is not as good as other available care (42.2%), bad prior experiences at the VA (40.8%), and difficulty accessing the VA due to parking and/or appointment availability (39.3%) as the top three reasons they are not using VA as their primary health care provider.

Figure 16. Reasons Warriors Use VA as Their Primary Health Care Provider

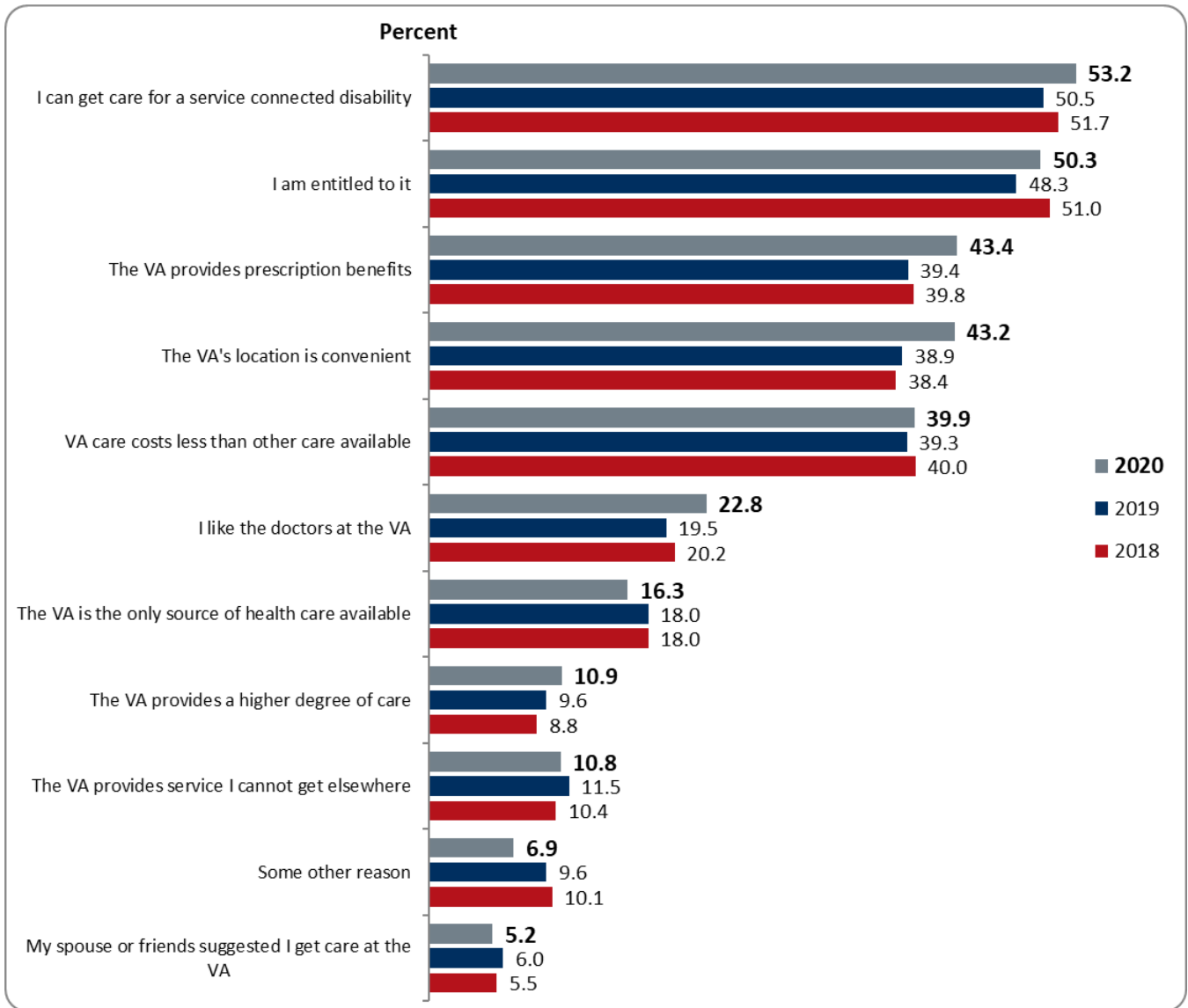
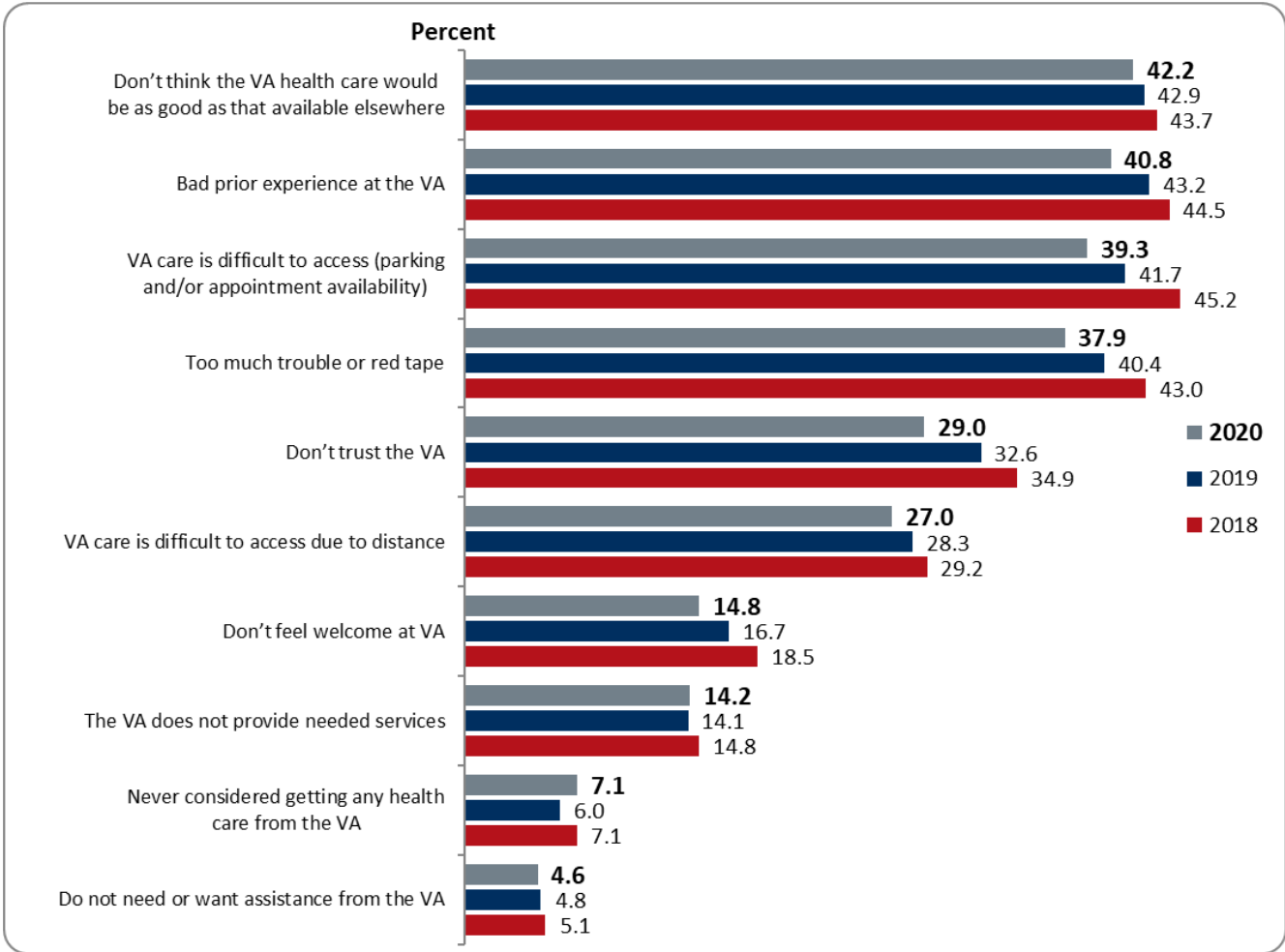


Figure 17. Reasons Warriors Do Not Use VA as Their Primary Health Care Provider



NEED FOR ASSISTANCE IN DAILY ACTIVITIES. As a result of injuries or health problems related to their post-9/11 military experience, 8.7 percent of warriors are permanently housebound. All warriors were asked to indicate their current requirements for assistance from another person for a range of daily living activities (Table 2). More than half of warriors (54.9%) indicated that they needed some assistance or were completely dependent on assistance from another person for one or more of the following daily activities. Four activities require more assistance than others — doing household chores, managing money, taking medications properly, and preparing meals. New categories were added in 2019, including grooming and prosthetic adjustment; therefore, not all activities have comparison data from 2018.

Table 2. Level of Assistance Needed with Daily Activities (Average Week)

	I can do without assistance (%)	I can do with some assistance (%)	I am completely dependent on assistance (%)	I do not do this activity (%)
Doing household chores				
2020	62.9	29.5	5.6	2.1
2019	62.3	29.4	5.9	2.4
2018	56.9	33.0	7.4	2.8
Managing your money				
2020	64.8	24.0	8.8	2.5
2019	61.3	25.8	9.9	3.0
2018	61.9	24.6	10.1	3.5
Taking medications properly				
2020	64.9	25.2	7.5	2.4
2019	63.0	25.9	8.3	2.9
2018	61.8	26.2	9.6	2.4
Preparing meals				
2020	75.8	18.4	4.2	1.6
2019	76.3	17.7	4.2	1.8
2018	70.9	19.9	6.3	2.9
Dressing				
2020	80.6	17.4	1.7	0.4
2019	79.8	18.1	1.7	0.4
2018	80.8	16.8	1.9	0.5
Bathing				
2020	81.6	16.0	1.9	0.5
2019	81.9	15.4	2.0	0.6
2018	82.6	14.7	2.1	0.7
Mobility/Transfer from bed or chair				
2020	81.3	16.1	1.7	0.9
2019	80.8	16.3	1.9	1.0
2018	85.9	11.1	1.6	1.4

Table 2. Level of Assistance Needed With Daily Activities (Average Week) – (continued)

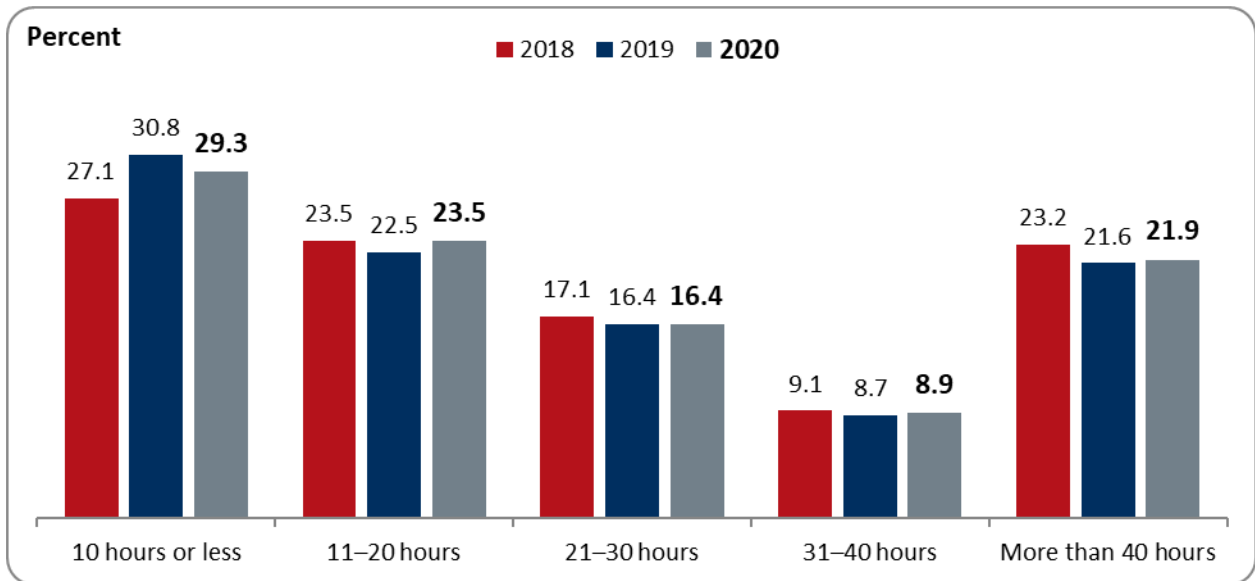
	I can do without assistance (%)	I can do with some assistance (%)	I am completely dependent on assistance (%)	I do not do this activity (%)
Using the telephone				
2020	92.5	5.4	1.5	0.6
2019	92.4	5.3	1.5	0.8
2018	91.1	6.1	1.9	0.9
Eating				
2020	90.3	7.6	1.7	0.4
2019	90.7	7.1	1.7	0.5
2018	90.7	7.1	1.7	0.6
Using the toilet				
2020	91.1	6.9	1.6	0.5
2019	91.3	6.7	1.5	0.6
2018	91.6	6.3	1.6	0.5
Grooming				
2020	83.4	14.4	1.7	0.5
2019	84.1	13.5	1.8	0.6
Prosthetic adjustment or use of assistive devices				
2020	37.9	7.0	1.6	53.4
2019	38.1	6.8	1.6	53.5

Most warriors (54.9%) indicated that they needed assistance from another person. Among warriors who need assistance, 59.0 percent need help with three or more activities:

- One activity – 23.2%
- Two activities – 17.9%
- Three to four activities – 23.3%
- Five to eight activities – 23.5%
- Nine to all twelve activities – 12.2%

A separate question about current need for the aid and attendance of another person because of post-9/11 injuries or health problems indicated that 30.6 percent of warriors do need such help (18.1% of warriors due to physical injuries; 24.0% due to mental problems). Among those who need assistance, about 30 percent (29.3%) need the help for 10 or fewer hours per week, on average; however, 21.9 percent need more than 40 hours of aid per week (Figure 18).

Figure 18. Average Hours per Week of Aid and Attendance Needed Among Those Needing Assistance

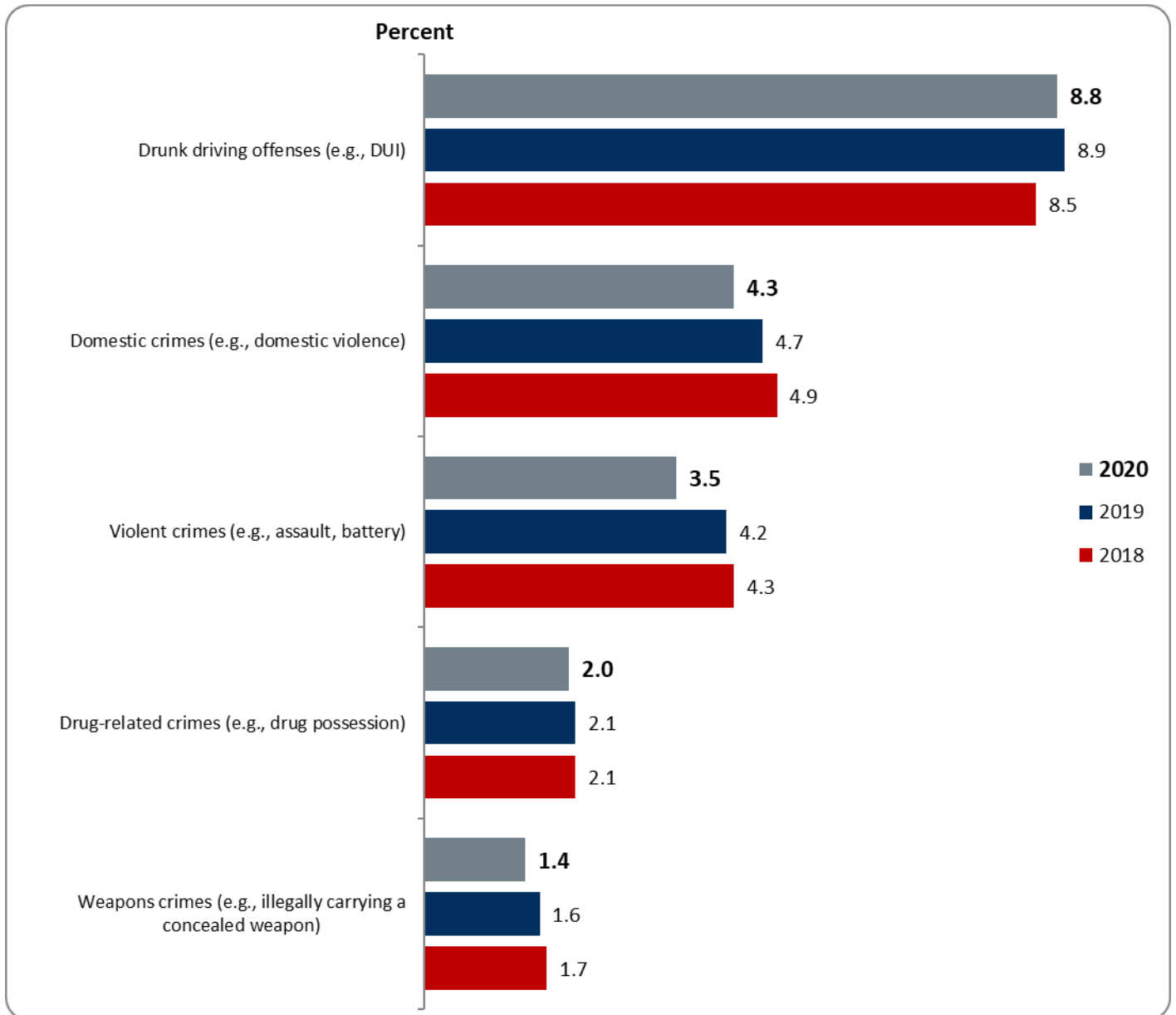


This year's survey gathered additional information about warrior caregivers. Most warriors who have a caregiver reported that their spouse was their primary caregiver (84.0%). More than 20 percent (21.3%) of warriors participated in the Program of Comprehensive Assistance for Family Caregivers, which is commonly referred to as the Caregiver Program or Family Caregiver.

OFFENSES/CONVICTIONS SINCE FIRST DEPLOYMENT

Warriors who have been deployed were asked the type of conviction and how many times they have been convicted of offenses/crimes since their first deployment. The percent of convictions are summed up and presented by type in Figure 19. Most warriors (86.2%) had not been convicted of any of the offenses listed. Of the warriors convicted of any of the listed offenses, nearly 9 percent (8.8%) were convicted of drunk driving offenses, and almost 5 percent have been convicted of domestic crimes (e.g., domestic violence).

Figure 19. Type of Convictions Since First Deployment for Offenses/Crimes



IMPACT OF THE COVID-19 PANDEMIC

In the wake of the coronavirus disease 2019 (COVID-19) pandemic, Wounded Warrior Project has taken innovative steps to continue fulfilling its mission despite the unique challenges the pandemic has created. As the situation evolves, WWP remains committed to serving warriors and their families. In order to help WWP provide care and resources where they are most needed, a series of questions concerning the impact of COVID-19 on warriors and their families were asked as part of this year's survey.

WARRIORS AND TESTING FOR COVID-19

When the survey was fielded between May and June, it showed less than 10 percent of warriors (8.7%) reported that they have been tested for COVID-19. Another 6.2 percent tried to but were unable to get tested. Of the 8.7% of warriors that have been tested, 6.7% tested positive. The positive result rate is not out of line with the percent of tests resulting in a positive finding for the nation as a whole. The Centers for Disease Control and Prevention (CDC) has reported that from March 1, 2020, through June 20, 2020, 9.9 percent of reported COVID-19 tests have returned a positive result.¹

Table 3 also shows testing and test result data by warriors self-reported health status. While the data does not vary greatly by health status, it does show that warriors who report their health as fair or poor had more difficulty getting tested for COVID-19 than those who self-report it as good, very good, or excellent. The percentage of warriors who tried but were unable to get testing was twice as high for those who reported fair or poor health than for those who reported very good or excellent health (7.8% vs. 3.9%).

Table 3. COVID-19 Testing and Test Results and Self-Reported Health Status

Statement	Percent of warriors	Warriors with Self-Reported Health Status of:		
		Fair/Poor	Good	Very Good/Excellent
Tested for COVID-19				
Yes	8.7	9.3	7.8	9.1
No, but I tried to get testing	6.2	7.8	5.1	3.9
No	85.1	82.9	87.1	87.0
Tested Positive for COVID-19*				
Yes	6.7	6.6	7.4	5.9
No	93.3	93.4	92.6	94.1

NOTE: *Among those tested.

¹ CDC data accessed August 13, 2020, at: <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/index.html>.

EMPLOYMENT, CHILD CARE, AND FINANCIAL CHALLENGES RELATED TO COVID-19

Survey questions on the impact of COVID-19 explored the extent to which warriors are facing challenges related to employment, child care, and household finances because of the pandemic. Warriors were asked to rate their level of agreement with a set of statements about challenges experienced due to COVID-19. Those for whom the statement did not apply could select “Does not apply to me.” Table 4 presents warriors’ level of agreement with statements about COVID-19-related challenges. A substantial percentage of warriors have experienced COVID-19-related challenges. Over 40 percent of warriors (41.3%) agreed that they have experienced challenges related to their employment status due to COVID-19 and one-third (33.7%) agreed with the statement that they “have or expect to run out of money for myself or my family’s necessities.”

The ratings for these statements were assigned numbers from 1 (Strongly disagree) to 5 (Strongly agree) and a mean response was calculated for each statement. If all responses were neutral, the mean would equal 3. Higher mean scores are associated with agreeing with the statement and lower mean scores are associated with disagreement. As can be seen from the last column in Table 4, warriors were more likely to agree with each statement than disagree, but agreement did not tend to be strongly felt.

Table 4. Level of Agreement with Statements about COVID-19-Related Challenges

Statement	Disagree	Neutral	Agree	Does Not Apply	Mean*
I have experienced challenges related to my employment status.	12.7%	10.2%	41.3%	35.7%	3.7
I have experienced challenges with childcare due to schools being closed.	9.2%	8.7%	27.5%	54.6%	3.6
I have experienced challenges with childcare due to having to work from home.	8.8%	9.9%	16.5%	64.9%	3.3
I have or expect to run out of money for myself or my family’s necessities.	26.3%	16.8%	33.7%	23.2%	3.1

NOTE: *Includes “disagree,” “neutral,” and “agree” responses only.

Table 5 shows the overall mean for the challenge statements and means by employment and health status. Those who are not currently employed tended to agree more strongly with all four of the challenge statements. While the currently employed have experienced some challenges related to their employment status (mean = 3.3), they tended to disagree with the statement that they “have or expect to run out of money for myself or my family’s necessities” (mean = 2.7). Those with a self-reported health status of fair or poor also tended to agree more strongly with each of the challenge statements than warriors with good, very good, or excellent health status. As self-reported health status improves (from fair or poor to good to very good or excellent), agreement with challenge statements falls.

Table 5. Level of Agreement with Statements about COVID-19-Related Challenges – Means by Employment and Health Status

Statement	Mean for all Warriors*	Currently Employed		Self-Reported Health Status		
		Yes	No	Fair/Poor	Good	Very Good/Excellent
I have experienced challenges related to my employment status.	3.7	3.3	4.3	4.0	3.6	3.2
I have experienced challenges with childcare due to schools being closed.	3.6	3.5	3.8	3.8	3.6	3.2
I have experienced challenges with childcare due to having to work from home.	3.3	3.2	3.5	3.5	3.2	3.0
I have or expect to run out of money for myself or my family's necessities.	3.1	2.7	3.5	3.4	2.9	2.5

NOTE: *Includes “disagree,” “neutral,” and “agree” responses only.

SOCIAL CONNECTEDNESS AND THE IMPACT OF SOCIAL DISTANCING

Warrior perceptions about the impact of social distancing on their mental and physical health and their feelings of connectedness to family, friends, and community are presented in Table 6. Again, a substantial percentage of warriors agree that social distancing is having a negative impact on their mental and physical health and their feelings of connectedness to those around them. Over 60 percent of warriors (60.5%) agreed with the statement “I feel more disconnected from my family, friends, or community.” More than half (51.9%) agreed that their mental health is worse since socially distancing themselves and almost half (48.9%) agreed that their physical health is worse since socially distancing themselves. Fortunately, a large majority of warriors (68.8%) agreed that they know where to turn for help if they need it. A much smaller number (13.0%) indicated disagreement with that statement.

Table 6. Level of Agreement with Statements about the Impact of Social Distancing

Statement	Disagree	Neutral	Agree	Does Not Apply	Mean*
I feel more disconnected from my family, friends, or community.	15.6%	14.8%	60.5%	9.1%	3.7
I feel my mental health is worse since socially distancing myself.	19.4%	21.1%	51.9%	7.5%	3.5
I feel my physical health is worse since socially distancing myself.	20.4%	22.9%	48.9%	7.8%	3.4
I know where to turn to for help if I need it.	13.0%	15.6%	68.8%	2.7%	3.9

NOTE: *Includes “disagree,” “neutral,” and “agree” responses only.

Table 7 shows the mean level of agreement with statements about the impact of social distancing for warriors overall and by employment and health status. Warriors tended to agree with both the negative statements concerning the impact of social distancing and the positive statement of knowing where to turn to for help. Those currently unemployed were more likely to agree with the negative statements and less likely to agree with the one positive statement. As

with the challenge statements, those with a self-reported health status of fair or poor also tended to agree more strongly with each of statements, perceiving more negative impacts of social distancing than warriors with good, very good, or excellent health status. As self-reported health status improves, disagreement with these negative statements rises. In particular, warriors with fair or poor health status tended to agree that socially distancing themselves worsened their mental (mean = 3.8) and physical (mean = 3.7) health while warriors with very good or excellent health tended to disagree with these statements (mean = 2.8 for mental health and 2.7 for physical health).

Table 7. Level of Agreement with Statements about the Impact of Social Distancing – Means by Employment and Health Status

Statement	Mean for all Warriors*	Currently Employed		Self-Reported Health Status		
		Yes	No	Fair/Poor	Good	Very Good/Excellent
I feel more disconnected from my family, friends, or community.	3.7	3.5	3.9	4.0	3.6	3.2
I feel my mental health is worse since socially distancing myself.	3.5	3.3	3.7	3.8	3.3	2.8
I feel my physical health is worse since socially distancing myself.	3.4	3.3	3.6	3.7	3.2	2.7
I know where to turn to for help if I need it.	3.9	4.0	3.8	3.7	4.0	4.3

NOTE: *Includes “disagree,” “neutral,” and “agree” responses only.

EXPERIENCE WITH THE VA

About half of warriors agreed that the VA provided the information they needed to continue their mental health care (51.6%) and their physical health care (48.4%) during the pandemic (Table 8). However, about 1 in 5 disagreed with these statements (20.2% and 22.3% of mental and physical health care, respectively) suggesting there is a group of warriors who need more information from the VA to ensure continuity in their mental and physical health care during this time.

Table 8. Level of Agreement with Statements about Information Received from the VA

Statement	Disagree	Neutral	Agree	Does Not Apply	Mean*
The VA has provided the information I need to continue my mental health care.	20.2%	19.1%	51.6%	9.1%	3.5
The VA has provided the information I need to continue my physical health care.	22.3%	21.6%	48.4%	7.8%	3.4

NOTE: *Includes “disagree,” “neutral,” and “agree” responses only.

IMPACT ON HEALTH CARE SERVICE PROVISION AND COMPENSATION/PENSION EXAMS

Warriors were asked if, since the COVID-19 pandemic began, they had mental health, physical health, or compensation and pension exam appointments canceled or postponed. Table 9 shows the responses to these questions for those warriors for whom the question applied. (“Does not apply” was selected by 25.3% of warriors for mental health appointments, 15.1% for physical health appointments, and 58.1% for compensation and pension exams.) Warriors were most likely to have physical health appointments canceled or postponed. Among those warriors with physical health appointments, almost 70 percent (69.9%) indicated that they had appointments canceled or postponed. A lower, but still significant, percentage of warriors (51.1%) had mental health appointments canceled or postponed. Compensation and pension exams were the least likely to be canceled or postponed as just 23.7% of warriors with these appointments reported cancellation or postponement. Warriors with fair or poor health status were more likely to report postponements or cancellations for all three types of appointments than those with good, very good, or excellent health status.

Table 9. Appointments Postponed or Canceled Since the COVID-19 Pandemic Began*

Appointments Postponed or Canceled	Percent of Warriors	Warriors with Self-Reported Health Status of:		
		Fair/Poor	Good	Very Good/Excellent
Mental health appointments				
Yes	51.1	56.2	47.2	38.7
No	48.9	43.8	52.8	61.3
Physical health appointments				
Yes	69.9	74.9	66.7	58.1
No	30.1	25.1	33.3	41.9
Compensation/Pension Exams				
Yes	23.7	27.0	21.3	18.3
No	76.3	73.0	78.7	81.7

NOTE: *Percentages include only those for whom the question applied. “Does not apply” was selected by 25.3% of warriors for mental health appointments, 15.1% for physical health appointments, and 58.1% for compensation and pension exams.

SUMMARY

Less than 10 percent of warriors (8.7%) report that they have been tested for COVID-19 and of those tested, 6.7% tested positive. While only a small number of warriors have actually contracted the disease, the pandemic’s impacts are being felt much more widely. Over 40 percent of warriors (41.3%) agreed that they have experienced challenges related to their employment status due to COVID-19 and one-third (33.7%) agreed with the statement that they “have or expect to run out of money for myself or my family’s necessities.” Even larger percentages of warriors agree that social distancing is having a negative impact on their mental and physical health and their feelings of connectedness to those around them with over 60 percent of warriors (60.5%) agreeing with the statement “I feel more disconnected from my family, friends, or community.” Access to mental and physical health care appointments has also been impacted with almost 70 percent (69.9%) of warrior indicating that they had physical health care appointments canceled or postponed and 51.1% reporting cancellation or postponement of mental health appointments. When looked at by selected warrior

characteristics, consistent differences in impact are found by self-reported health status. Regardless of the question, those with fair or poor health status report more negative impacts of COVID-19 than those with good, very good, or excellent health status.

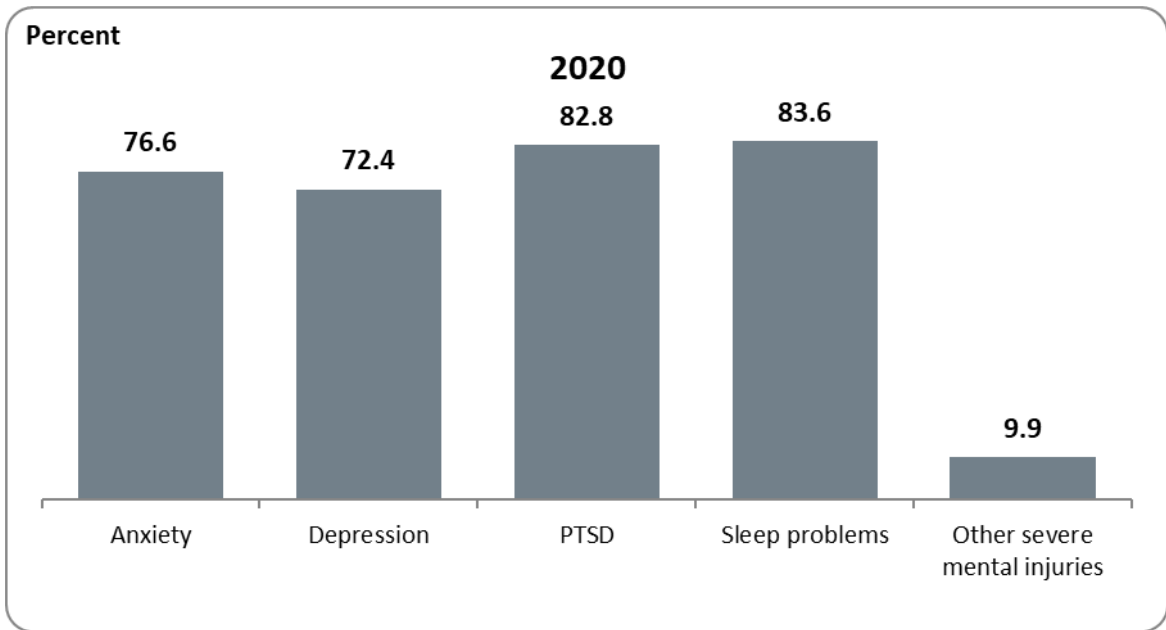
PHYSICAL AND MENTAL WELL-BEING

This section of the report addresses warriors’ perspectives on the current state of their mental health, physical health, and its impacts on quality of life. To provide a comprehensive picture, the analyses include examination of sleep, substance abuse, diet, exercise, and access to medical care. The chapter closes by examining warriors’ engagement in their communities, social isolation, and resilience.

MENTAL HEALTH AND DAILY ACTIVITIES

Almost all warriors (92.6%) report that they experienced a severe mental injury during their military service. In this chapter, severe mental injuries include sleep problems, post-traumatic stress disorder, anxiety, depression, and a catchall category for other severe mental injuries. Figure 20 displays the percentage of warriors self-reporting these severe mental injuries. Over 80 percent (82.6%) of warriors report experiencing two or more severe mental injuries during military service, and an estimated 90 percent report that they experienced both severe mental injury and severe physical injury. This section focuses on warriors’ mental and emotional health.

Figure 20. Percentage of Warriors Reporting Severe Mental Injuries Sustained During Service



The WWP annual survey uses a variety of validated scales to assess the prevalence of mental health conditions and their impact on the WWP population. Scales include:

- The nine-item Patient Health Questionnaire (PHQ-9), which screens for major depression;
- The PTSD Checklist for Diagnostic and Statistical Manual Disorders (PCL-5), which assesses the presence and severity of PTSD;
- The Pittsburgh Sleep Quality Index (PSQI), which rates quality of sleep;

- The Veterans RAND 12-Item Health Survey (VR-12), which offers health-related quality of life indicators; and
- Connor Davidson 10-Item Resilience Scale (CD-RISC 10), which is a self-rated measure of the ability to overcome adversity.

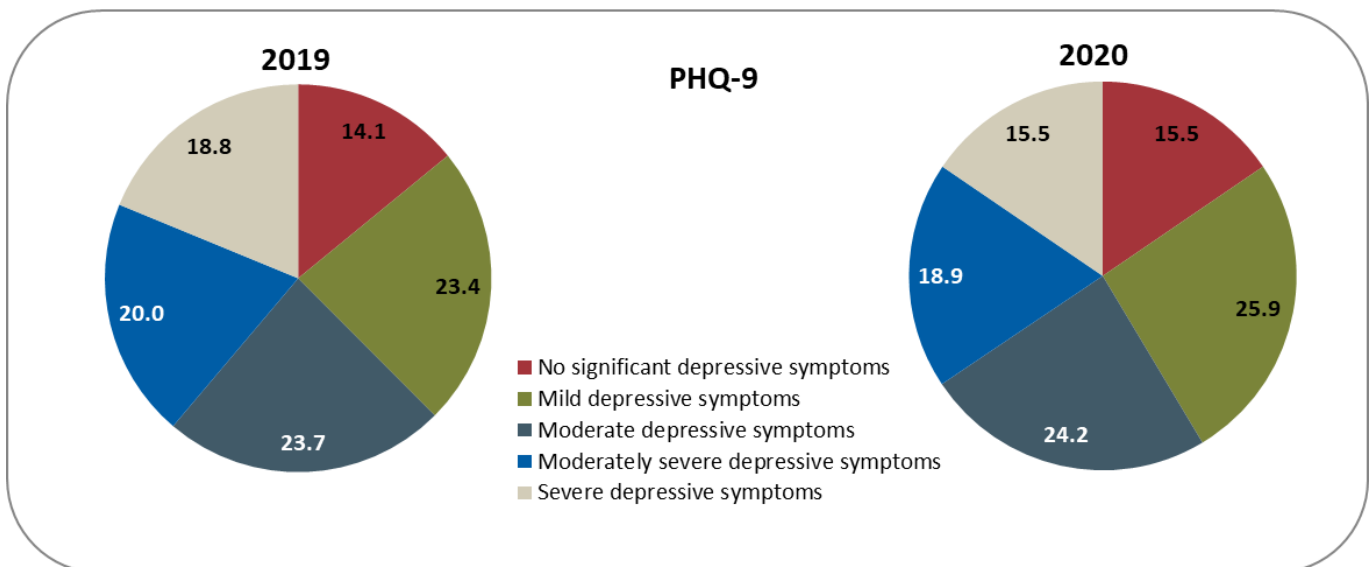
In this section, total scale scores are reported and responses to individual scale items are highlighted to explore stability in responses over time.

PREVALENCE OF CURRENT DEPRESSION (PHQ-9). Depression can be debilitating. Severe depressive symptoms may include thoughts of death or suicide, sleep problems, and changes in weight. All forms of depression can interfere with relationships, but severe depression can be paralyzing and may cause victims to isolate themselves.

As mentioned, the survey includes the PHQ-9 to assess the prevalence of depression. PHQ-9 scale score ranges from 0 to 27, with higher scores indicating more severe depressive symptoms. Prior to 2019, Westat administered the PHQ-8, or eight of the nine items on the PHQ-9. The relatively new item in the composite scale asks, “How often in the past two weeks have you been bothered by thoughts that you would be better off dead or of hurting yourself in some way?”

Based on PHQ-9 scores, about 16 percent (15.5%) of warriors may have severe depression (Figure 21), down slightly from last year’s finding of about 19 percent. Nearly 20 percent (18.9%) of warriors have scores indicating that they may have moderately severe depression, a similar percentage to last year’s finding of 20 percent. About one-quarter (24.2%) of warriors’ scores indicate moderate depression, which is also similar to last year’s finding of about 24 percent. An additional quarter of warriors (25.9%) have total PHQ-9 scores in the range indicating mild depression. About 16 percent (15.5%) of warriors have PHQ-9 scores in the range indicating that they do not suffer from depression.

Figure 21. Percentage Distribution of Warriors by Severity of Depressive Symptomology (PHQ-9)



High prevalence of depression among WWP members is not surprising. The items reported in Table 10 make up the PHQ-9. In general, the 2020 findings are similar to those from 2019.

Table 10. Frequency in the Past 2 Weeks of Being Bothered by Various Types of Problems

	Not at all	Several days	More than half the days	Nearly every day
Little interest or pleasure in doing things				
2020	18.9	39.3	24.1	17.7
2019	17.9	37.9	24.1	20.1
2018	19.7	37.1	24.1	19.0
Feeling down, depressed, or hopeless				
2020	22.3	40.4	21.6	15.7
2019	20.1	38.8	22.7	18.5
2018	23.0	38.2	21.8	17.0
Trouble falling or staying asleep, or sleeping too much				
2020	9.9	26.9	25.2	38.0
2019	10.2	24.7	24.6	40.5
2018	10.5	24.3	25.3	39.9
Feeling tired or having little energy				
2020	8.9	33.7	27.0	30.3
2019	8.2	30.0	26.5	35.4
2018	8.7	29.4	27.5	34.4
Poor appetite or overeating				
2020	22.2	32.4	23.5	22.0
2019	20.9	30.6	23.4	25.1
2018	21.3	30.3	23.9	24.5
Feeling bad about yourself — or that you are a failure or you have let yourself or your family down				
2020	30.3	33.4	18.8	17.6
2019	27.0	33.0	19.4	20.6
2018	27.7	32.3	20.0	20.0
Trouble concentrating on things such as reading the newspaper or watching television				
2020	20.8	34.3	22.5	22.4
2019	19.8	32.6	22.3	25.3
2018	20.4	31.6	23.7	24.3
Moving or speaking so slowly that other people could have noticed. Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual				
2020	48.2	27.6	15.0	9.2
2019	44.4	28.8	15.4	11.4
2018	42.6	29.1	16.5	11.8
Thoughts that you would better off dead or hurting yourself in some way				
2020	70.5	18.0	6.8	4.7
2019	67.2	20.0	6.9	5.9
2018	NA	NA	NA	NA

NOTE: NA indicates not applicable. This item was not included in 2018 because it was not part of the PHQ-8.

PREVALENCE OF PTSD (PCL-5). The PCL-5 is a 20-item scale used to assess the prevalence and severity of PTSD. For each of the 20 items, respondents are asked to report how bothered they are using a 5-point Likert scale where 0=Not at all, 1=A little bit, 2=Moderately, 3=Quite a bit, and 4=Extremely. Total scores range from 0 to 80, with higher scores indicating greater likelihood and severity of PTSD. Use of the PCL-5 was new in the 2019 WWP Annual Warrior Survey.

Preliminary research indicates that a total PCL-5 score of 33 is indicative of a provisional PTSD diagnosis. The mean score for wounded warriors is 35.5 (median = 35), suggesting that the typical warrior likely suffers from PTSD and may benefit from treatment. Using a total score of 33 as a cutoff, 54.1 percent of warriors score in a range indicating that they may benefit from treatment for PTSD. This high prevalence is consistent with findings that 55 percent of OEF/OIF/OND veterans who registered for VA health care receive at least a provisional PTSD diagnosis (Pickett et al., 2015).

Figure 22 presents the percentage distribution of PCL-5 total scores by increments. About 46 percent (45.9%) of warriors have scores below a score of 33, including about 16 percent (15.8%) of warriors who have scores relatively close to the cutoff (scores ranging between 22 and 32).

Figure 22. Percentage Distribution of Warriors by PCL-5 Total Score

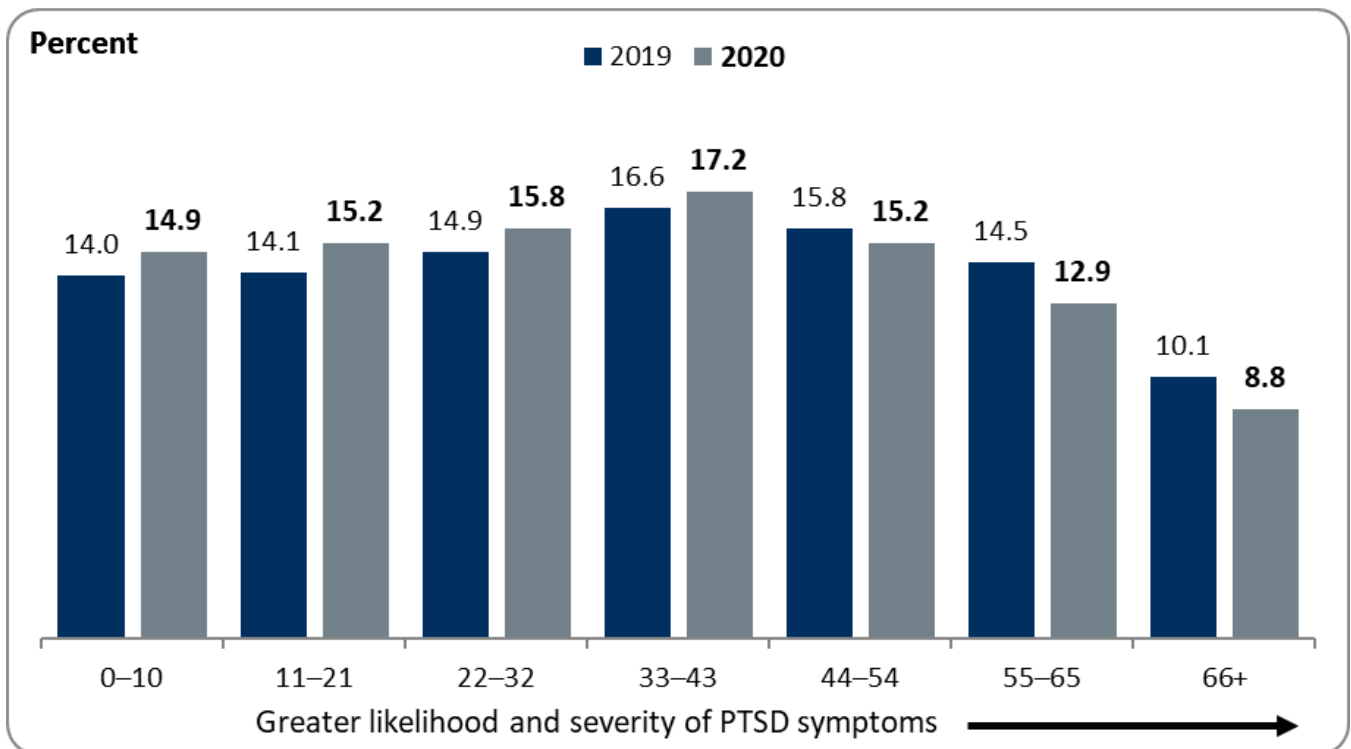


Table 11 presents the mean response to each item used in the PCL-5. Higher mean values indicate that warriors are more likely to be extremely bothered. Though all means are above 2 — indicating that the typical warrior is more than moderately bothered — items with the highest means include trouble sleeping (mean=3.5), being “superalert” (mean=3.2), and having difficulty concentrating or feeling distant from others (mean=3.1, respectively for each item). On the other extreme, though still at least moderately bothered, the typical warrior is less bothered by thoughts of taking too many risks or taking actions that cause him/her harm (mean=2.0).

Table 11. PCL-5 Items and Mean Scores

Items from PCL-5	Mean	
	2019	2020
Trouble falling or staying asleep	3.5	3.5
Being “superalert” or watchful or on guard	3.3	3.2
Having difficulty concentrating	3.2	3.1
Feeling distant or cut off from other people	3.1	3.1
Avoiding external reminders of the stressful experience	3.0	2.9
Avoiding memories, thoughts, or feelings related to the stressful experience	3.0	2.9
Feeling jumpy or easily startled	3.0	2.9
Loss of interest in activities that you used to enjoy	3.0	2.9
Feeling very upset when something reminded you of the stressful experience	2.9	2.8
Having strong physical reactions when something reminded you of the stressful experience	2.9	2.7
Irritable behavior, angry outbursts, or acting aggressively	2.9	2.8
Repeated, disturbing, and unwanted memories of the stressful experience	2.9	2.8
Trouble experiencing positive feelings	2.9	2.8
Having strong negative feelings such as fear, horror, anger, guilt, or shame	2.8	2.7
Repeated, disturbing dreams of the stressful experience	2.8	2.7
Having strong negative beliefs about yourself, other people, or the world	2.6	2.6
Blaming yourself or someone else for the stressful experience or what happened after it	2.5	2.5
Suddenly feeling or acting as if the stressful experiences were actually happening again	2.5	2.4
Trouble remembering important parts of the stressful experience	2.5	2.5
Taking too many risks or doing things that could harm you	2.1	2.0

To accelerate the development of advanced models of mental health care, Wounded Warrior Project partners with four world-renowned academic medical centers to form the Warrior Care Network®, leveraging its collective commitment and expertise. The Warrior Care Network treatment model provides a year’s worth of mental health care during a 2- to 3-week intensive outpatient program (IOP). In addition, a first-of-its-kind collaboration between WWP and the VA further expands the Warrior Care Network continuum of care, enabling successful discharge

planning for program participants. Warriors who complete the program have seen a significant reduction in PTSD and depression symptoms, translating to increased resiliency and improved quality of life. The Warrior Care Network program provides veterans a path to long-term wellness and improves the way warriors are treated today and for generations to come.

ASSESSING SLEEP. Though not a psychiatric disorder *per se*, sleep problems are commonly linked to psychiatric disorders and, for this report, are categorized among severe mental injuries that warriors report. For the second year, the annual survey included the Pittsburgh Sleep Quality Index (PSQI)² in order to assess current sleep quality among warriors. The PSQI rates “poor” and “good” sleep by assessing seven sleep domains: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleep medication, and daytime dysfunction over the last month. Higher scale scores indicate worse sleep quality. A cutoff score greater than 5 is used in this report to indicate poor sleep quality and may indicate a potential sleep disorder (Buysse et al., 2010). PSQI scores indicate that about 91 percent (90.6%) of warriors have poor sleep quality, similar to last year’s findings of 91.4 percent.

Warriors report sleeping about 5.5 hours, on average, per night, about 1.5 hours less than the lower bound recommended by the National Sleep Foundation, which is 7 hours.³ Less than six hours of sleep per night is consistent with other results based on the National Veterans Sleep Survey, which found that veterans slept, on average, 5.6 hours per night (Polley, Frank, & Smith, 2013). It takes the typical warrior about 45 minutes to fall asleep (mean=47.5 minutes; median=45 minutes). Nearly two-thirds (64.6%) of warriors rate their overall sleep quality as *fairly or very bad*.

Table 12 presents the percentage of warriors by how frequently they experience select sleep difficulties. The most frequently reported sleep problems that bother warriors three or more times a week are waking in the middle of the night or early morning (68.3%), not being able to fall asleep within 30 minutes (56.7%), and pain that keeps warriors awake (49.8%). Several of the items are indicators of clinically relevant insomnia. Based on results from the National Sleep Survey, Polley, Frank, and Smith found that 78.7 percent of veterans who had actively engaged in combat reported symptoms that met the criteria for insomnia, which was statistically significantly higher than the 69.2 percent of veterans who had not actively engaged in combat but reported symptoms that met criteria for insomnia.

Table 12. How Often Warriors Experience Difficulties Associated with Sleep

During the past months, how often have you had trouble sleeping because you...	Not during the past month	Less than once a week	Once or twice a week	Three or more times a week
Wake up in the middle of the night or early morning	5.7	7.2	18.8	68.3
Cannot get to sleep within 30 minutes	15.1	10.8	17.4	56.7
Have pain	14.5	13.0	22.6	49.8
Have to get up to use the bathroom	15.6	18.8	23.6	42.0

² PSQI is copyright 1989 and 2010. University of Pittsburgh. All rights reserved.

³ <https://www.sleepfoundation.org/press-release/national-sleep-foundation-recommends-new-sleep-times> (February 2, 2015).

During the past months, how often have you had trouble sleeping because you...	Not during the past month	Less than once a week	Once or twice a week	Three or more times a week
Cough or snore loudly	33.7	12.8	15.1	38.4
Had bad dreams	18.6	18.2	28.3	34.9
Feel too hot	27.8	15.8	26.3	30.1
Other reasons	49.1	10.9	15.3	24.7
Cannot breathe comfortably	42.2	16.9	17.8	23.1
Feel too cold	55.5	18.0	15.1	11.4

IMPACT OF MENTAL HEALTH ON DAILY ACTIVITIES (VR-12). The WWP survey asked warriors a variety of questions about their health and how it affects their daily activities. Among the questions asked is a series taken from the Veterans Rand 12 Item Health Survey (VR-12). The VR-12 is a health-related quality-of-life survey developed for research with veterans. The VR-12 has two subscales. One subscale, the Mental Component Scale (MCS) score, assesses the impact of mental health on daily activities; the other, the Physical Component Scale (PCS) score, assesses the impact of physical health on daily activities. On these scales, higher scores indicate better health-related quality of life, and a score of 50 is the norm for the U.S. population. Each 10-point difference from 50 indicates one standard deviation from the norm. This section reports on findings associated with the MCS, which emphasizes role limitations due to emotional problems, vitality, mental health, and social functioning. PCS scores are discussed later in this chapter.

The unadjusted mean MCS score for warriors is 35.8, which is about 1.5 standard deviations below the U.S. norm. The unadjusted mean MCS score for female warriors is 33.1; for male warriors, it is 36.5. These low mean scores indicate that mental health issues substantively, adversely affect the typical warrior's quality of life. In fact, only 15 percent (14.9%) of warriors had an MCS unadjusted mean score of 50 or higher; that is, only 15 percent of warriors have mental health-related quality of life that is at least as good as the norm in the U.S.

For additional context, the mean MCS score for warriors is more than a standard deviation lower than baseline measures for the Millennium Cohort, which exhibited an unadjusted mean MCS score of 52.8 (Smith et al., 2007). Even a one- or two-point decrease in MCS scores is associated with greater social and clinical costs (Kazis et al., 2006). Subsequently, the discussion highlights findings from items used in the MCS.

Among the items used to determine the MCS score include questions inquiring about the influence of mental health problems on work or other daily activities and on desired productivity — accomplishing as much as you would have liked — within the past four weeks. Nearly 8 in 10 warriors (77.5%) indicated that they did not do work as carefully as usual because of their emotional problems (Figure 23, left). Among these warriors, 33.1 percent said that this was the case *most or all of the time* (Figure 23, right). More than 8 in 10 warriors (83.4%) indicated that they were less productive — i.e., they accomplished less than they would have liked — because of emotional problems (Figure 24, left). Among those who indicated that their emotional problems caused them to accomplish less than they would have liked, 41.9 percent said that emotional problems reduced desired productivity *all or most of the time* (Figure 24, right).

Figure 23. Impact of Emotional Health on Daily Activities

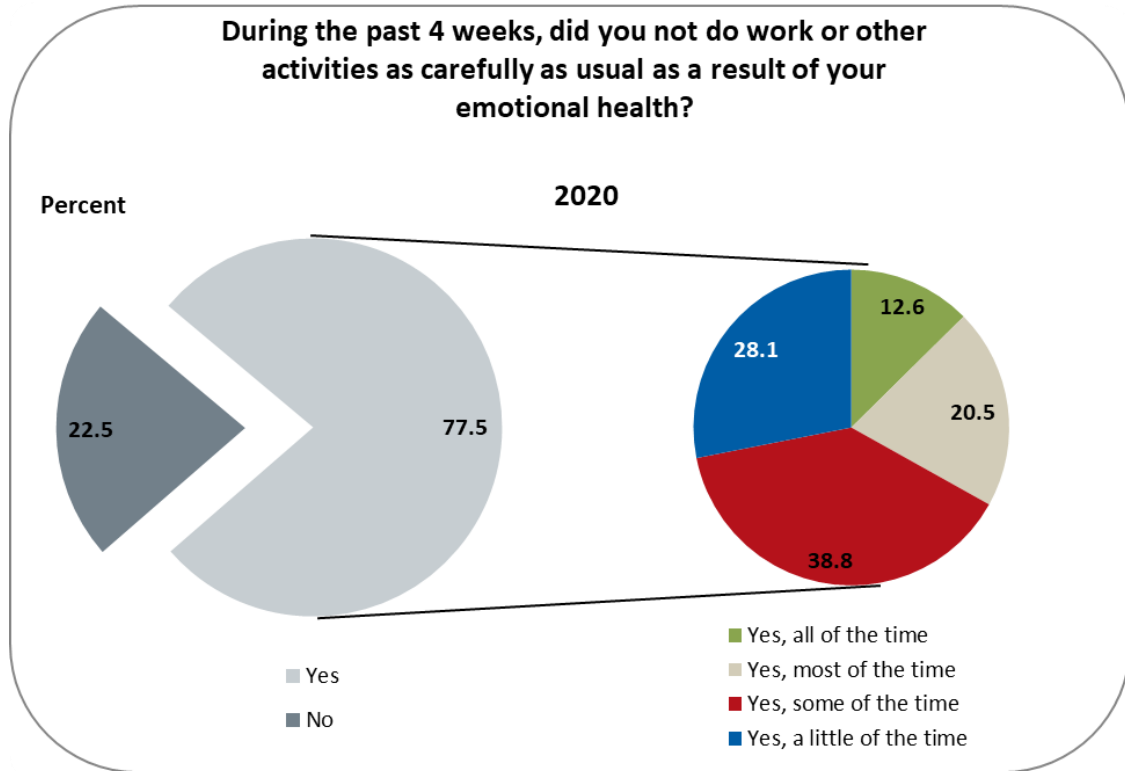
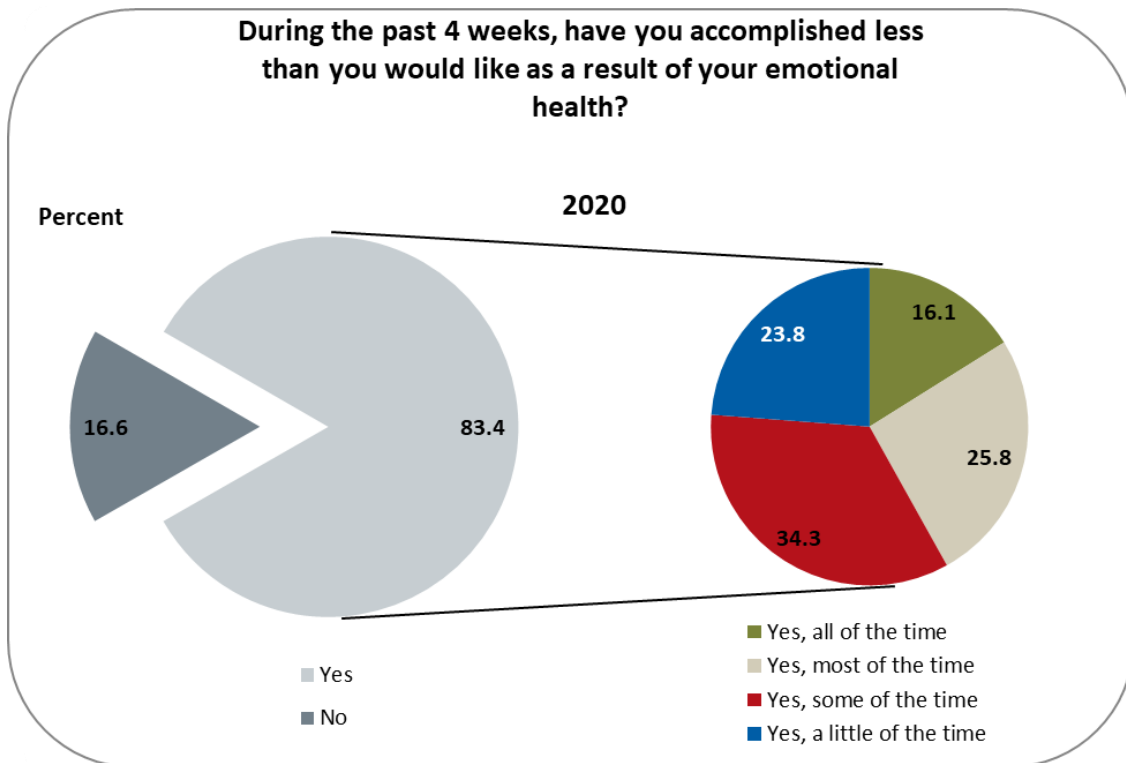


Figure 24. Impact of Emotional Health on Desired Productivity



Additional items in the VR-12 explore how frequently warriors experienced certain feelings during the past four weeks. Table 13 presents the findings for these items for the past three years. The percentage distributions across items are very stable; that is, there are no notable changes in responses over time. Combining response categories of *a little of the time* and *none of the time*, an estimated 42.6 percent of warriors did not feel calm and peaceful very often in the past four weeks, and 50.2 percent did not have a lot of energy very often during the past four weeks. Combining response categories of *all of the time*, *most of the time*, and *a good bit of the time*, many warriors (43.2%) indicate that they often feel downhearted or blue. These findings are consistent with high prevalence of depression among wounded warriors.

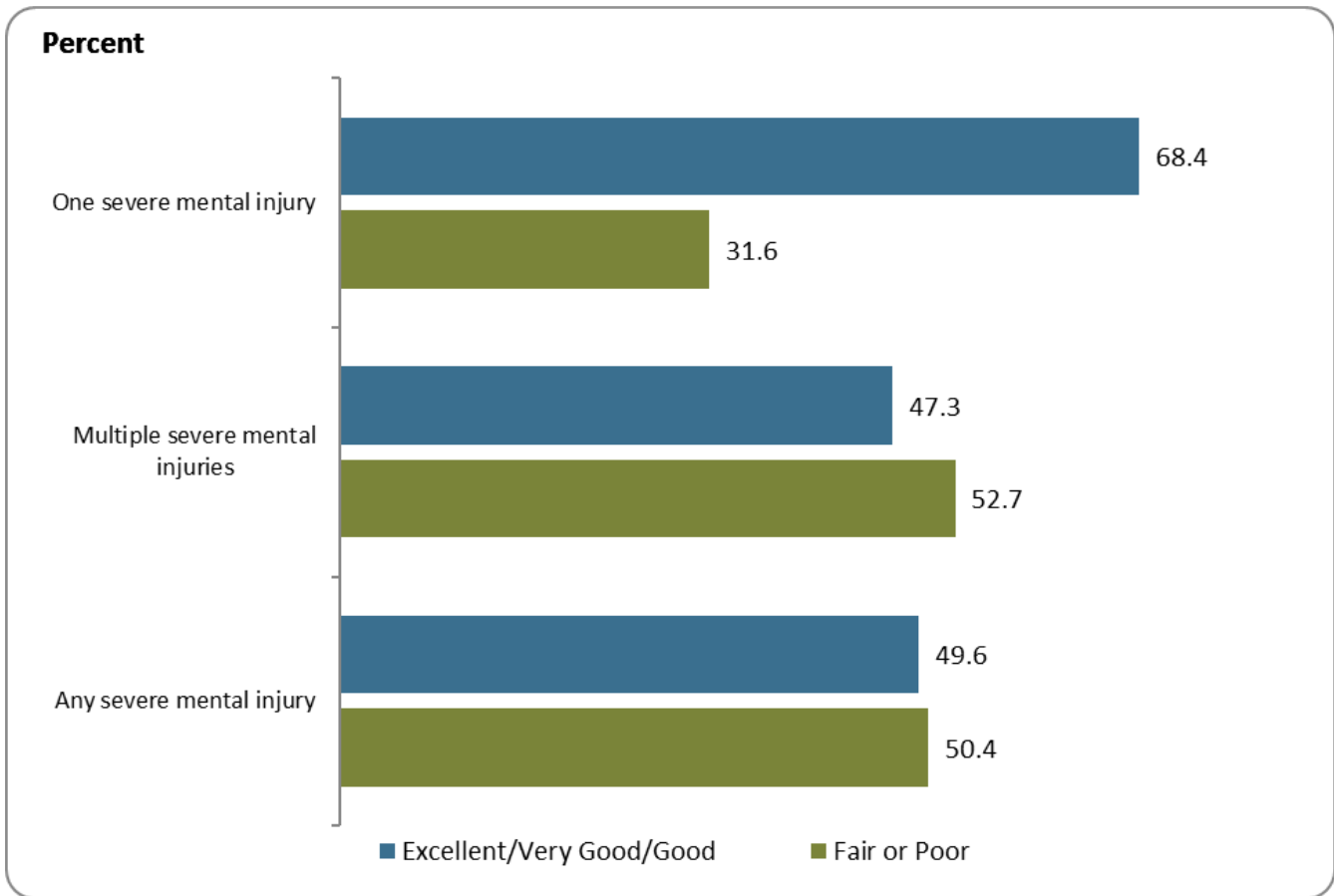
Table 13. Frequency of Select Feelings During the Past 4 Weeks

	All of the time	Most of the time	A good bit of the time	Some of the time	A little of the time	None of the time
Have you felt calm and peaceful?						
2020	2.5	12.0	14.5	28.5	31.4	11.2
2019	2.5	12.5	13.4	27.9	31.5	12.1
2018	2.7	11.8	13.6	27.7	31.8	12.4
Did you have a lot of energy?						
2020	1.5	7.8	12.5	27.8	33.9	16.3
2019	1.7	8.4	11.8	27.7	32.9	17.5
2018	1.7	7.8	11.8	27.5	33.4	17.8
Have you felt downhearted and blue?						
2020	7.0	18.4	17.8	27.2	20.8	8.8
2019	7.7	19.0	18.1	26.3	20.1	8.8
2018	7.7	19.3	17.9	26.1	20.1	9.0

One item in the VR-12 asks warriors to rate their current emotional problems — such as feeling anxious, depressed, or irritable — with those from a year ago. Slightly more than one-third (35.1%) of warriors indicate that their emotional problems are either *somewhat worse* or *much worse*, while nearly half (47.3%) indicate that their emotional problems are *about the same* as last year. Nearly one in five (17.6%) warriors indicate that they are *somewhat* or *much* better than a year ago.

Analysis from the survey data underscores the impact of poor mental health on warriors' current activities and perceptions of overall health. The typical employed warrior reports losing about 6 days of work (median=6; mean=9.0) in the last four weeks due to poor mental health. About half (50.4%) of warriors who suffered at least one severe mental injury rate their overall health as fair or poor. Figure 25 contrasts the self-reported health status of warriors with one severe mental injury sustained compared with multiple severe mental injuries.

Figure 25. Health Status Assessment by Mental Injury Sustained During Service



In sum, scales used to assess the prevalence of mental health illness among wounded warriors suggest a high prevalence of current severe and moderately severe depression (34.4%) and of PTSD (54.1%). Both of these findings are consistent with those from OEF/OIF/OND veterans who have enrolled in the VA for health care. The typical warrior sleeps less than the recommended minimum number of hours per night (7 hours), and 90.6 percent of warriors have poor sleep quality based on PSQI scores. Depression, PTSD, and other forms of mental illness have a notable effect on warriors' quality of life — evidenced by an unadjusted mean MCS score that is about 1.5 standard deviations below the U.S. norm. Though nearly two-thirds (64.9%) of warriors indicate that their emotional problems are the same as, somewhat better, or much better than they were last year, just over one-third (35.1%) indicate that they are somewhat or much worse — a similar distribution to that in previous years. The next section examines warriors' physical health and its impact on quality of life.

PHYSICAL HEALTH AND DAILY ACTIVITIES

As discussed in Section 1, an estimated 95.1 percent of all WWP members indicate that they sustained some type of severe physical injury during their military service. For this report, severe physical injuries are those listed in Table 14. The vast majority (87.0%) of warriors sustained two or more severe physical injuries. As mentioned, about 90 percent of warriors indicate that they sustained both severe mental and physical injuries during their service. The top five most commonly reported severe physical injuries are back, neck, or shoulder problems (74.3%); tinnitus (58.8%); knee injuries or problems (52.2%); migraine (49.7%); and severe hearing loss (48.6%). Table 14 presents the percentage of warriors indicating physical injuries sustained during service based on 2020 survey responses. Findings from the 2019 survey are provided for context. These self-reported data make clear that, during their military service, wounded warriors experienced a wide array of physical trauma. This section explores their current health status based on responses to the 2020 survey.

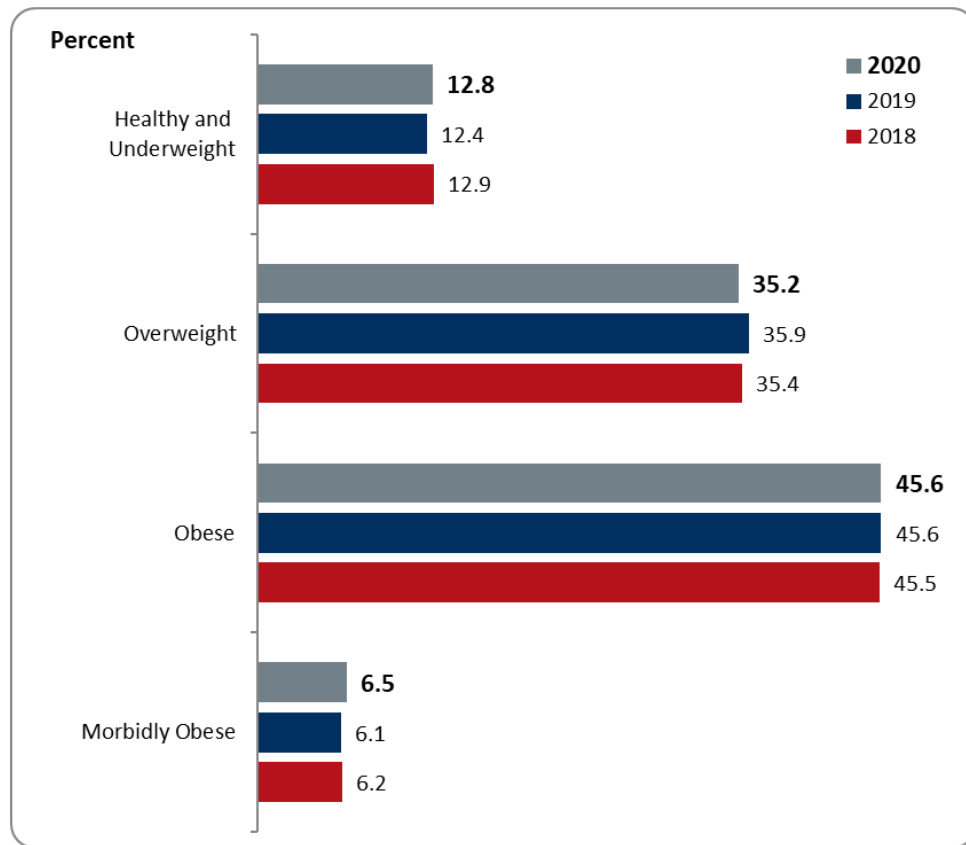
Table 14. Percent of Warriors Indicating Physical Injuries Sustained During Service

Severe physical injury	Percent	
	2019	2020
Back, neck, or shoulder problems	76.8	74.3
Tinnitus	60.7	58.8
Knee injuries or problems	55.7	52.2
Migraines/other severe headaches	53.4	49.7
Hearing loss	52.5	48.6
Traumatic brain injury (TBI)	39.2	37.3
Ankle/feet injuries	35.2	33.7
Nerve injuries	30.1	27.5
Head injuries other than traumatic brain injury	22.7	18.3
Hand injuries	19.1	16.8
Hip injuries	17.0	15.9
Fractured bones	16.1	14.6
Spinal cord injury	11.8	9.8
Other severe physical injuries	11.5	10.7
Military sexual trauma	10.4	10.9
Shrapnel problems	6.5	5.6
Blind or severe visual loss	2.2	1.9
Burns (severe)	1.9	1.4
Amputation	1.3	1.6

ASSESSING BODY MASS INDEX (BMI). The average (mean) height was 5'5" (64.8 inches) for female warriors and 5'10" (70.1 inches) for male warriors. The average (mean) weight was 178.6 pounds for female warriors and 218.3 pounds for male warriors. The Centers for Disease Control and Prevention (CDC) reports the mean weight for adults age 20 and older to be 170.5 pounds for women and 197.8 pounds for men (Fryar et al., 2018).

Body mass index (BMI) is a person’s weight relative to their height and is used as an indicator of body fat. If BMI equals or exceeds 30, the person is classified as obese, which puts the individual at higher risk for various health problems, including type 2 diabetes, heart disease and stroke, kidney disease, and sleep apnea. Figure 26 presents the distribution of warriors’ BMI scores by weight category, splitting the obese and morbidly obese (BMI>40) into separate categories. An estimated 12.8 percent of warriors have BMI scores in the healthy or underweight range (an index score less than 25). Slightly more than one-third (35.2%) of warriors have BMI scores in the overweight range (an index score between 25 and 29.99). More than half (52.1%) of wounded warriors have BMIs in the obese range (an index score of 30 or higher). Average BMI for female warriors is 29.9; nearly 45 percent (44.8%) have BMI scores above 30. Average for male warriors is 31.2; about 54 percent (53.9%) have BMI scores above 30. These findings indicate that the prevalence of obesity is notably higher among wounded warriors than veterans who use VA facilities, 41 percent (Breland et al., 2017). The high prevalence of obesity among wounded warriors does not appear to be moderating (Figure 26).

Figure 26. Warrior Body Mass Index Scores (BMI)



NOTE: Underweight = BMI less than 18.5, Healthy = BMI between 18.5 and 24.99, Overweight = BMI between 25 and 29.99, Obese = BMI between 30 and 39.99, and Morbidly Obese = BMI more than 40.

According to the Centers for Disease Control and Prevention, the prevalence of obesity among adults aged 20 to 39 years was 40.0 percent and 44.8 percent among middle-age adults aged 40 to 59 years (CDC, 2020). A study of Millennium Cohort participants examined possible reasons for weight gain after discharge from military service (Littman et al., 2013). Researchers found that an increased weight gain at the time of discharge may help to explain reports of high

rates of obesity among veterans. They documented weight gain before and around the time of discharge over the course of six years and found a near tripling of obesity, from 12 percent to 31 percent. Subgroups at higher risk for weight gain after discharge included younger veterans, less educated, overweight/obese at time of discharge, active duty (versus National Guard/Reserve), women, and deployers with combat experience. In the WWP warrior population, physical and mental injuries that limit physical activity are likely to be contributing factors to weight gain.

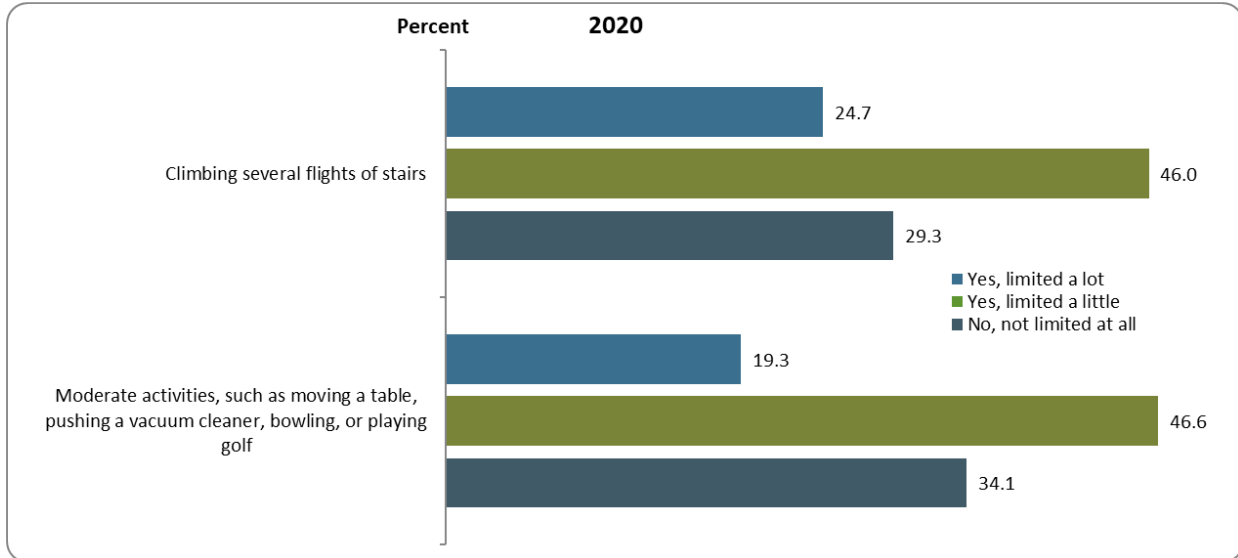
IMPACT OF PHYSICAL HEALTH ON DAILY ACTIVITIES (VR-12). The PCS is a subscale from the VR-12 that assesses the impact of general health, physical functioning, role limitation due to physical functioning, and bodily pain on health-related quality of life. On this scale, higher scores indicate better physical health-related quality of life, and a score of 50 is the norm for the U.S. population. Each 10-point difference in scores indicates one standard deviation.

For the second year in a row, the unadjusted mean PCS score for warriors is 37.9, slightly more than one standard deviation lower than the U.S. norm. The unadjusted mean PCS score for female warriors is 37.8; for male warriors, the unadjusted mean is 38.2. Only 14 percent (14.2%) of warriors have a PCS score of 50 or higher; that is, only 14 percent of warriors have physical health-related quality of life that is at least as good as the norm in the U.S.

For additional context, the PCS score for WWP warriors is similar to estimates found among veterans enrolled in the Veterans Health Administration (VHA) who have a single medical comorbidity, 37.5. Even a one- or two-point decrease in PCS score is associated with greater social and clinical costs (Kazis et al., 2006). Subsequently, the discussion highlights findings from items used in the PCS.

Two items used in the PCS asked warriors to assess how their health limits them in a range of daily activities. Warriors were asked whether their health limits them *a lot* or *a little*, or whether they are *not limited at all* (Figure 27). About two-thirds of warriors (70.7%) report that their health limits them (either *a lot* or *a little*) when climbing several flights of stairs. Of the warriors who report they are limited, about 34.9 percent (not shown) are limited *a lot*. Two-thirds (65.9%) of warriors report that they are limited (either *a lot* or *a little*) when undertaking moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf. Of the warriors who report they are limited, slightly less than 1 in 3 warriors (29.2%; not shown) are limited *a lot*.

Figure 27. Physical Activity Limitations



The VR-12 assesses the influence of physical health on work or other regular daily activities and on desired productivity — accomplishing as much as you would have liked — within the past four weeks. About 8 in 10 warriors (80.6%) said that their physical health limited them in the kind of work or other activities they could do (Figure 28, left). Among warriors who indicated that they were limited in the kinds of work or other activities they could do, 37.5 percent indicate that they were limited *most* or *all of the time* (Figure 28, right). More than 8 in 10 warriors (84.1%) were less productive — i.e., they accomplished less — than they would have liked because of their physical health (Figure 29, left). Among those who indicated that their physical health caused them to accomplish less than they would like, 39.5 percent said physical health reduced productivity *most* or *all of the time* (Figure 29, right).

Figure 28. Impact of Physical Health on Daily Activities

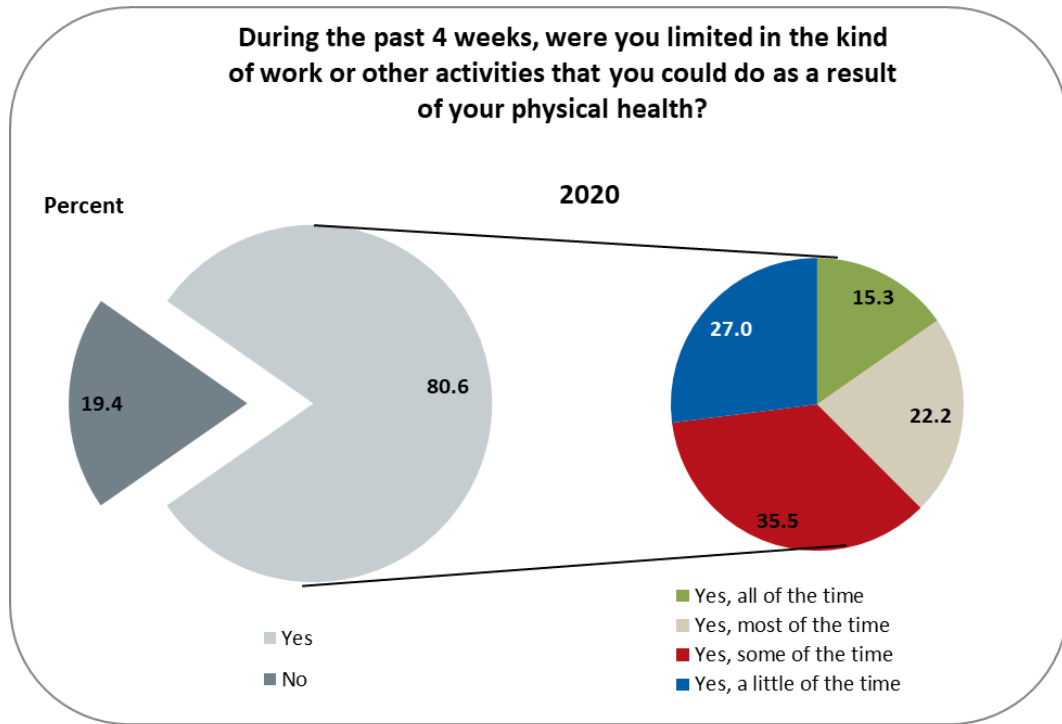
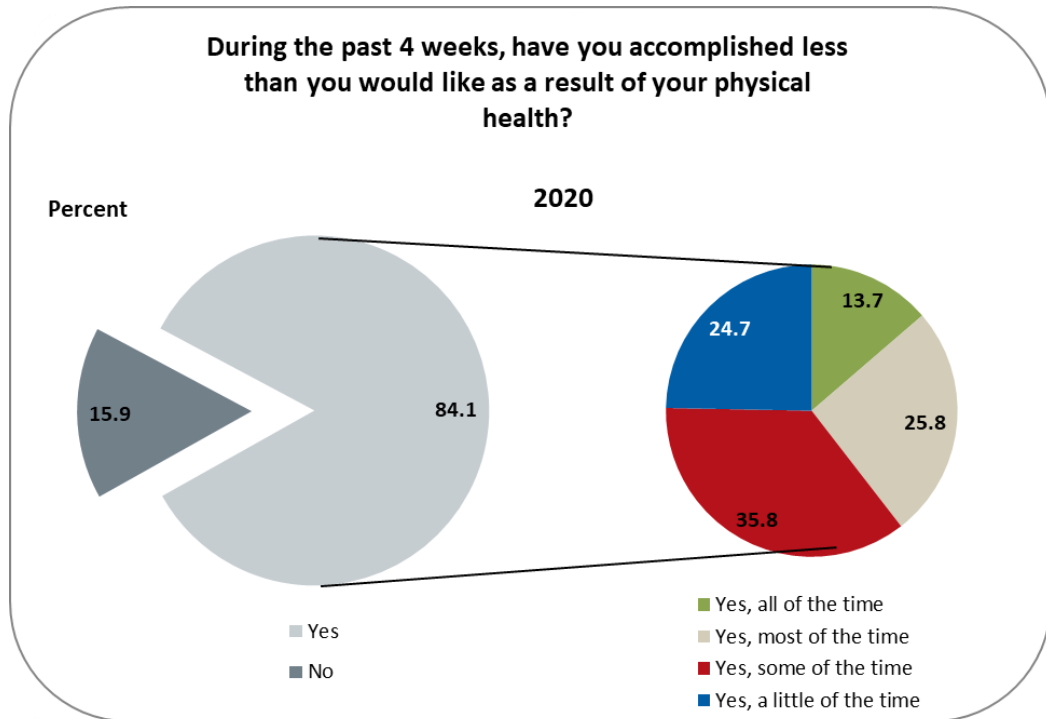
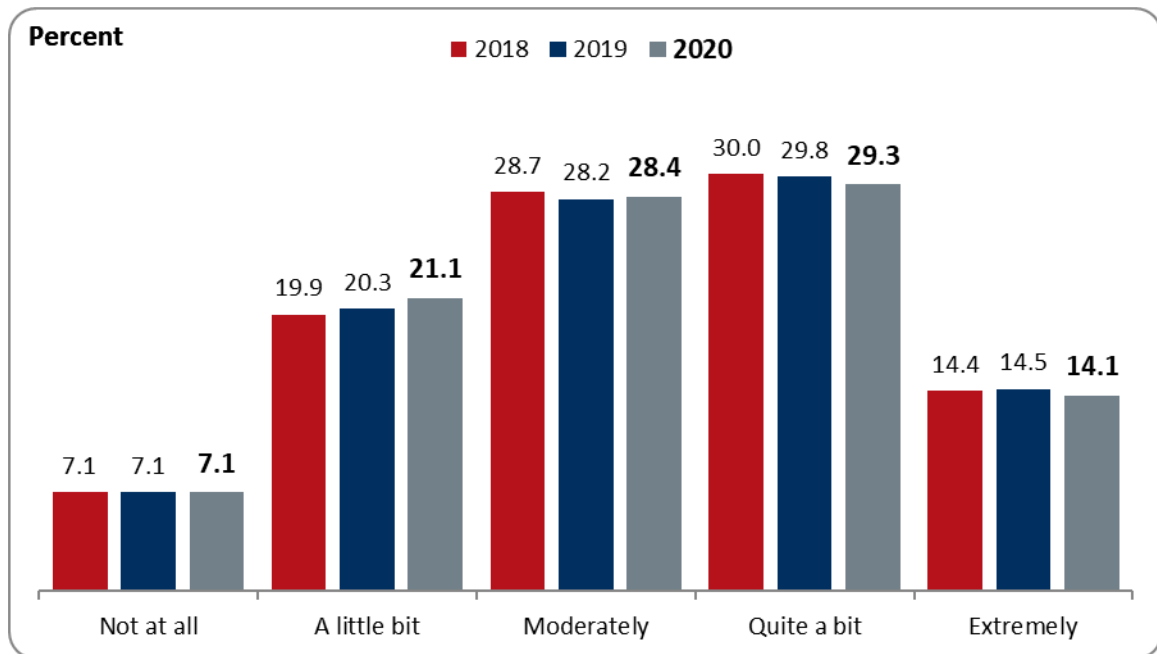


Figure 29. Impact of Physical Health on Desired Productivity



The VR-12 also asks about the extent to which pain interferes with normal activities. More than 7 in 10 warriors (71.8%) report that pain interfered *moderately*, *quite a bit*, or *extremely* with their normal work, including both work outside the home and housework, during the past four weeks (Figure 30). The percentage of warriors reporting that pain interfered *extremely* with their normal work is 14.1 percent, which is similar to the percentage reporting this level of interference in previous years.

Figure 30. Extent to Which Pain Interfered with Normal Work (Work Outside the Home and Housework)



Analysis from the survey results underscores the impact of poor physical health on warriors' current activities and perceptions of overall health. The typical employed warrior reports losing about 6.0 days of work (median=6.0; mean=9.0) in the last four weeks due to poor physical health. Analyses of survey data also underscore the impact of physical injuries on perception of current health. Among those who indicated that they experienced a severe physical injury during their time of service, about half (49.3%) rate their current overall health as *fair* or *poor*.

In sum, 90 percent of warriors suffer from severe physical injuries and severe mental injuries. The most common injuries are to the back, neck, and shoulder; tinnitus or severe hearing loss; and migraines. With an estimated half (52.1%) of warriors either overweight or obese, excess weight is a noteworthy concern. Physical and mental injuries that limit physical activity are also likely to be contributing factors to weight gain. Though the majority of warriors (61.5%) indicate that their health is about the same or at least somewhat better than last year, 38.4 percent indicate that it is at least somewhat worse — a similar distribution to that found in previous years. The next section examines additional health behaviors, including substance use, diet, and exercise patterns in the WWP population, all of which directly affect health.

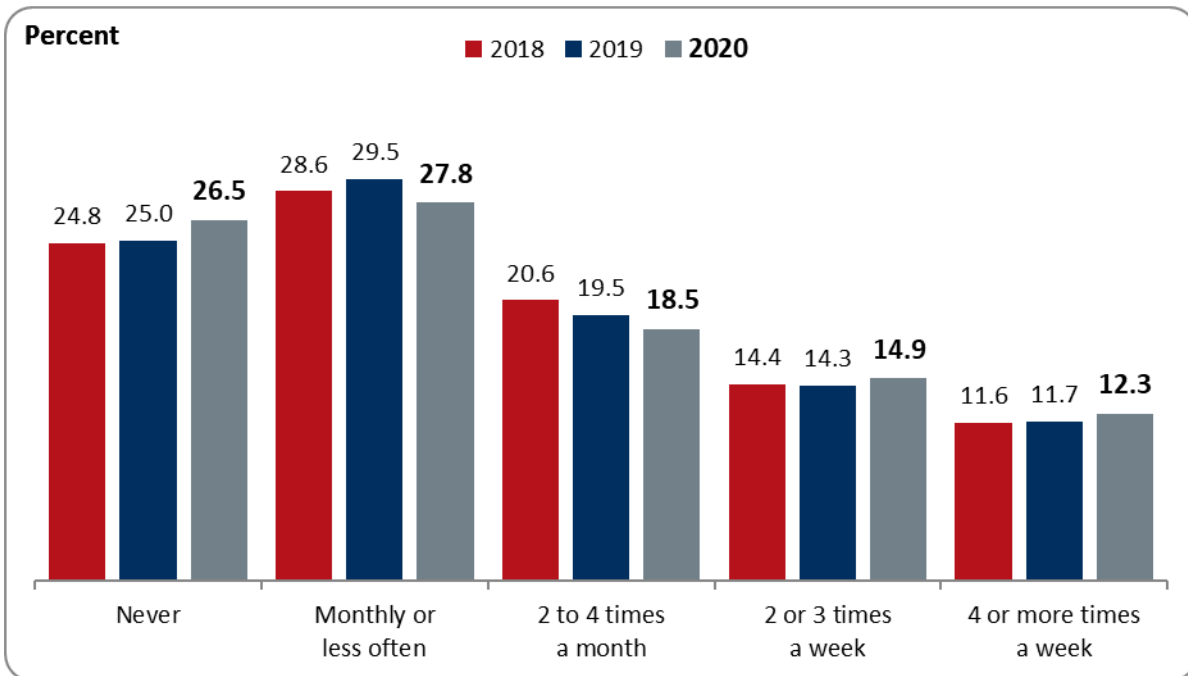
HEALTH-RELATED MATTERS

The WWP survey includes questions about alcohol and drug use, diet, and exercise as health-related behaviors with known association and impact on physical and mental health. The Alcohol Use Disorders Identification Test for Consumption (AUDIT-C) assesses risky drinking. The Two-Item Conjoint Screen (TICS) screens for substance use disorder. The California Health Interview Survey (CHIS) 2009 Dietary Screener assesses diet quality. The survey incorporated items from the Global Physical Activity Questionnaire (GPAQ) to examine physical activity among warriors.

USE OF ALCOHOLIC BEVERAGES. The AUDIT-C scale is composed of three questions, and the computed scores range from 0 to 12. A score of 4 or higher represents a positive alcohol screen for at-risk drinking for males (hazardous drinking), and a score of 3 or higher is positive for females (Bradley et al., 2007; Dawson, Grant, Stinson & Zhou, 2005). The mean score for male warriors is 3.0, and the mean score for female warriors is 2.0. An estimated 36.2 percent of male warriors score positive for risky drinking, compared to 30.4 percent of female warriors. These scores include all warriors, even those who never drink alcohol. A study conducted by RAND found that 35.3 percent of active-duty personnel in the military scored 4 or higher (hazardous drinking) as measured by AUDIT-C (Meadows et al., 2015). The RAND study also found that 36.0 percent of male and 31.3 percent of female service members scored positive for hazardous drinking, or possible alcohol use disorder. Limiting analyses to only those warriors who drank alcohol in the past year, the mean score for male alcohol drinkers is 4.0, and for females, it is 2.9, indicating that male warriors are, on average, at the gender-specific threshold for hazardous drinking, and female warriors are, on average, very close to the threshold. Among those warriors who indicated that they drank alcohol in the past year, 43.3 percent of female warriors and 48.6 percent of male warriors score positive for hazardous drinking.

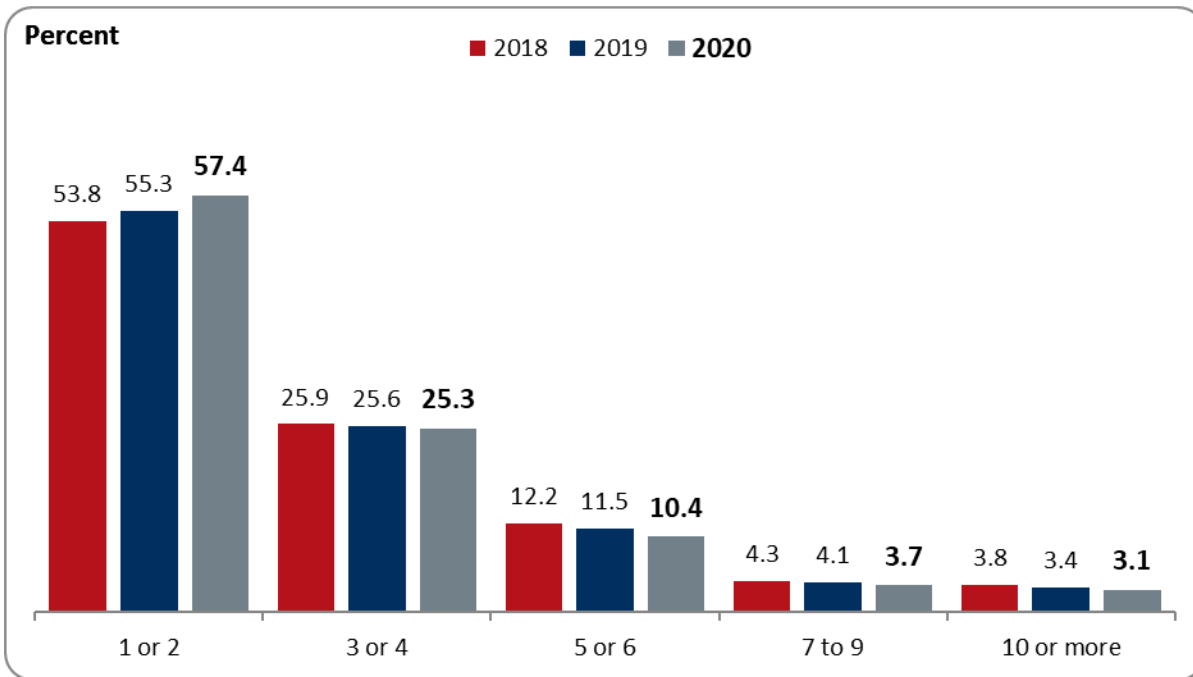
Individual items used in the AUDIT-C also provide insight on drinking behaviors among warriors. About one-quarter (26.5%) of warriors did not drink at all during the past 12 months, and 27.8 percent drank monthly or less often. An estimated 18.5 percent of warriors drank between two and four times a month. About a quarter (27.2%) of warriors reported having drinks containing alcohol two or more times a week (Figure 31). The 2020 data on alcohol use are similar to the data for previous years.

Figure 31. Frequency of Use of Alcoholic Beverages



On a typical day when warriors who drank alcohol in the past 12 months did have an alcoholic drink, the vast majority (82.7%) had four drinks or fewer (Figure 32). An estimated 10.4 percent drank between five or six drinks on a typical day. The remaining 6.8 percent drank at least seven drinks on a typical day when drinking.

Figure 32. Number of Alcoholic Drinks Consumed on a Typical Day



SELECT DRUG USE. For the third year, the survey inquired about use of specific drugs in the past 12 months. The questions specifically asked about use of prescribed or over-the-counter drugs in excess of the directions or use of nonmedical drugs. The list of drugs included marijuana, barbiturates, opiates, tranquilizers, amphetamines, psychedelics, cocaine, heroin, and other drugs — prescribed or over the counter — that are not used as intended. For each of these select drugs, a vast majority of warriors indicated that they had not used them in the last 12 months. The top five most frequently used in excess or nonmedically were marijuana, barbiturates, opiates, tranquilizers, and amphetamines (Table 15). The other drugs category was cited more frequently than amphetamines — 6.6 percent of warriors indicated that they used drugs in the other category within the last 12 months, compared to 3.7 percent of warriors who indicated that they used amphetamines within the past 12 months. However, the other category likely reflects a variety of different drugs, so it was excluded from the top-five list. Nearly 2 in 10 (19.7%) warriors indicated they used marijuana at some point in the last 12 months, including about 10.0 percent of warriors who indicated that they used it more than twice a week. These percentages are consistent with last year’s findings (19.7% used including 10.1% more than twice a week). An estimated 11.2 percent of warriors indicated that they used barbiturates within the last 12 months, including 5.9 percent who used them more than twice a week. The percentages using barbiturates is down slightly from 2019 (14.4% used including 7.6% more than twice a week). An estimated 7.7 percent of warriors indicated that they used opiates in excess or nonmedically in the past 12 months, including about 2.7 percent who used them more than two times per week. The percentages are down from last year’s findings (10.5% used including 3.7% more than twice a week), perhaps reflecting national efforts to restrict opioid use. The table below provides some comparison to drug use within the general population.

SAMHSA, National Survey on Drug Use and Health

Annual Averages 2016 (General population, 12 years and over)

- 13.9 percent used marijuana
- 4.3 percent used pain relievers
- 2.2 percent used tranquilizers
- 2.1 percent used stimulants (amphetamines)
- 1.9 percent used cocaine
- 1.8 percent used hallucinogens such as LSD, PCP, or ecstasy (psychedelic)
- 0.6 percent used sedatives (barbiturates)
- 0.5 percent used methamphetamine (amphetamines)
- 0.4 percent used heroin (SAMHSA, 2017).

Source: SAMHSA, September 2017, Table 1.1B: <https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.pdf>.

Table 15. Percent of Warriors by Excess and Nonmedical Use of Select Drugs in Past Year

Drug	Percent who have not used	Percent who have used	Percent who have used by frequency of use				
			Less than once a month	About once a month	Two or three times a month	Once or twice a week	More than twice a week
Marijuana	80.3	19.7	4.4	1.5	1.8	1.9	10.0
Barbiturates	88.8	11.2	1.3	0.7	1.5	1.7	5.9
Opiates	92.3	7.7	2.2	0.9	1.0	0.9	2.7
Tranquilizers	93.2	6.8	1.5	0.7	1.1	0.9	2.6
Other prescription or over-the-counter drugs	93.4	6.6	1.4	0.8	1.0	0.9	2.4
Amphetamines	96.3	3.7	0.9	0.4	0.6	0.4	1.5
Psychedelics	97.9	2.1	1.1	0.4	0.3	0.2	0.2
Cocaine	98.1	1.9	0.8	0.3	0.3	0.2	0.3
Heroin	99.1	0.9	0.1	0.2	0.2	0.2	0.2

To explore the prevalence of substance use disorder — either alcohol or drugs — among warriors, the 2020 survey included the TICS, a two-item screener. If at least one item elicits an affirmative response, the respondent screens positive for in-depth assessment. The TICS does not diagnose substance abuse disorder. Rather, it reveals whether more screening for this disorder is needed, using a scoring method that indicates the likelihood of a substance use disorder. Based on 2020 survey responses, 13.6 percent of warriors who have used alcohol or drugs in the past year have a 72 percent likelihood of having current substance use disorder; that is, they answered both items affirmatively. A similar percentage of warriors who have used substances in the past year, 12.9 percent, have a 37 percent likelihood of having a current substance use disorder; that is, they answered one of the items affirmatively. The vast majority (73.6%) did not screen positive for a current substance abuse disorder.

DIET QUALITY. The survey used items from the CHIS to evaluate fruit and vegetable consumption among warriors. The United States Department of Agriculture publishes MyPlate guidelines with age- and gender-specific recommendations for the amount of fruit and vegetables that should be consumed as part of a healthy diet. Women older than 18 years should consume between 1.5 and 2 cup-equivalents of fruit **and** 2 to 2.5 cup-equivalents of vegetables per day as part of a healthy diet. Men older than 18 years should consume 2 cup-equivalents of fruit **and** between 2.5 and 3 cup-equivalents of vegetables per day as part of a healthy diet. Based on items from the CHIS, on average female warriors consume 2.8 cup-equivalents per day of fruits and vegetables in total, and on average male warriors consume about 3.3 cup-equivalents per day in total. These findings indicate that warriors are consuming fewer fruit and vegetables in total than recommended and may be missing valuable vitamins, minerals, and fiber necessary to maintain health.

Added sugars represent another area of dietary concern. The Dietary Guidelines for Americans recommend that Americans limit their added sugars intake to less than 10 percent of daily

calories, which for a 2,000-calorie diet is about 12 teaspoons of added sugars per day (ODPHP, 2016). About 39 percent of Americans aged 20 to 49 years and 50 percent of American age 50 or older meet this recommendation. Those who meet the recommendation consume, on average, about 6.7 teaspoons or 28 grams of sugar (Bowman et al., 2017). The typical American, however, consumes about 17 teaspoons of added sugars per day (ODPHP, 2016). On average, warriors consume about 28.9 teaspoons of added sugars per day. Male warriors consumed a higher amount on average, 31.0 teaspoons; female warriors consume a lower amount on average, 20.5 teaspoons. Reducing intake of added sugars may help warriors control weight gain and preempt chronic conditions like diabetes.

PHYSICAL ACTIVITY AND EXERCISE. In its *Physical Activity Guideline for Americans*, the Department of Health and Human Services (DHHS) recommends that “[a]dults with chronic conditions or disabilities, who are able, should do at least 150 minutes (2 hours and 30 minutes) to 300 minutes (5 hours) a week of moderate-intensity, or 75 minutes (1 hour and 15 minutes) to 150 minutes (2 hours and 30 minutes) a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity. Preferably, aerobic activity should be spread throughout the week.” DHHS notes, “When adults with chronic conditions or disabilities are not able to meet the above key guidelines, they should engage in regular physical activity according to their abilities and should avoid inactivity.”⁴

The Global Physical Activity Questionnaire was developed and used by the World Health Organization for physical activity surveillance across countries. Administered for the second time as part of the 2020 WWP annual survey, the GPAQ was used to measure frequency, intensity, and duration of recreational and sedentary behavior among warriors. Based on responses to GPAQ items, just under one-third (32.6%) of warriors engage in vigorous-intensity sports that cause large increases in breathing or heart rate, such as running or football, for at least 10 minutes continuously. Among those who engage in vigorous-intensity sports, they typically engage in these activities between three and four days a week. On a typical day that they engage in these vigorous activities, male warriors who engage in vigorous-intensity sports spend 86 minutes on average (median 60 minutes) and female warriors who engage in vigorous-intensity sports spend 68 minutes on average (median 60 minutes) engaged in these types of vigorous activities. About half (49.2%) of warriors engage in moderate-intensity sports that cause small increases in breathing or heart rate, such as brisk walking, cycling, swimming, or volleyball, for at least ten minutes continuously. Among those who engage in moderate-intensity sports, they typically engage in these activities between three and four days a week. On a typical day that they engage in these activities, male warriors who engage in moderate-intensity sports spend 80 minutes on average (median 60 minutes) and female warriors who engage in moderate-intensity sports spend 64 minutes on average (median 60 minutes) engaged in these types of moderate activities. When looking at sedentary behavior, male warriors spend about 6.5 hours on average (median 6 hours) sitting or reclining per day, and this is somewhat higher for female warriors, who spend an average of 7.5 hours (median 7 hours) sitting or reclining each day.

The survey explored warriors’ perceptions of physical activity by asking them to indicate how strongly they agree with select statements about barriers to and facilitators of physical activity. Agreement is indicated using a 5-point scale ranging from *strongly disagree* to *strongly agree*. In order to facilitate pattern recognition, responses of *strongly agree* and *agree* are collapsed into

⁴ <https://www.hhs.gov/fitness/be-active/physical-activity-guidelines-for-americans/index.html>. Accessed July 8, 2019.

a single category and *strongly disagree* and *disagree* are collapsed into another category. Tables 16 and 17 present the percentage distribution of warriors by three levels of agreement: *disagree*, *neutral*, and *agree*. Both tables also contain the mean score for each item, which indicates how the typical warrior might respond to this statement about physical activity. A mean closer to 5 indicates stronger agreement with the statement, a mean closer to 3 indicates neutrality about the statement, and a mean closer to 1 indicates stronger disagreement with the statement.

A large percentage of warriors agree that physical activity has health benefits, including decreasing feelings of stress and tension (67.7%), improving flexibility and mobility (67.9%), and improving mental health (67.3%). However, barriers to exercising are also evident. Most warriors indicate concerns about physical activity making pain or injury worse (54.8%) and about reinjury (52.8%).

Table 16. Level of Agreement with Statements about Facilitators of Physical Activity

Statement	Disagree	Neutral	Agree	Mean
Physical activity improves the way my body looks	4.1%	24.5%	71.4%	3.9
Physical activity decreases feelings of stress and tension for me	8.1%	24.2%	67.7%	3.9
Physical activity gives me a sense of personal accomplishment	5.7%	24.0%	70.3%	3.9
Physical activity increases my stamina	5.7%	28.0%	66.3%	3.8
Physical activity improves my mental health	6.1%	26.6%	67.3%	3.9
Physical activity improves my flexibility or mobility	7.2%	25.0%	67.9%	3.8
Physical activity improves overall body functioning for me	7.7%	30.2%	62.0%	3.7
Physical activity helps me sleep better at night	14.6%	35.0%	50.4%	3.5
Physical exercise lets me have contact with friends and persons I enjoy	25.4%	44.6%	29.9%	3.0

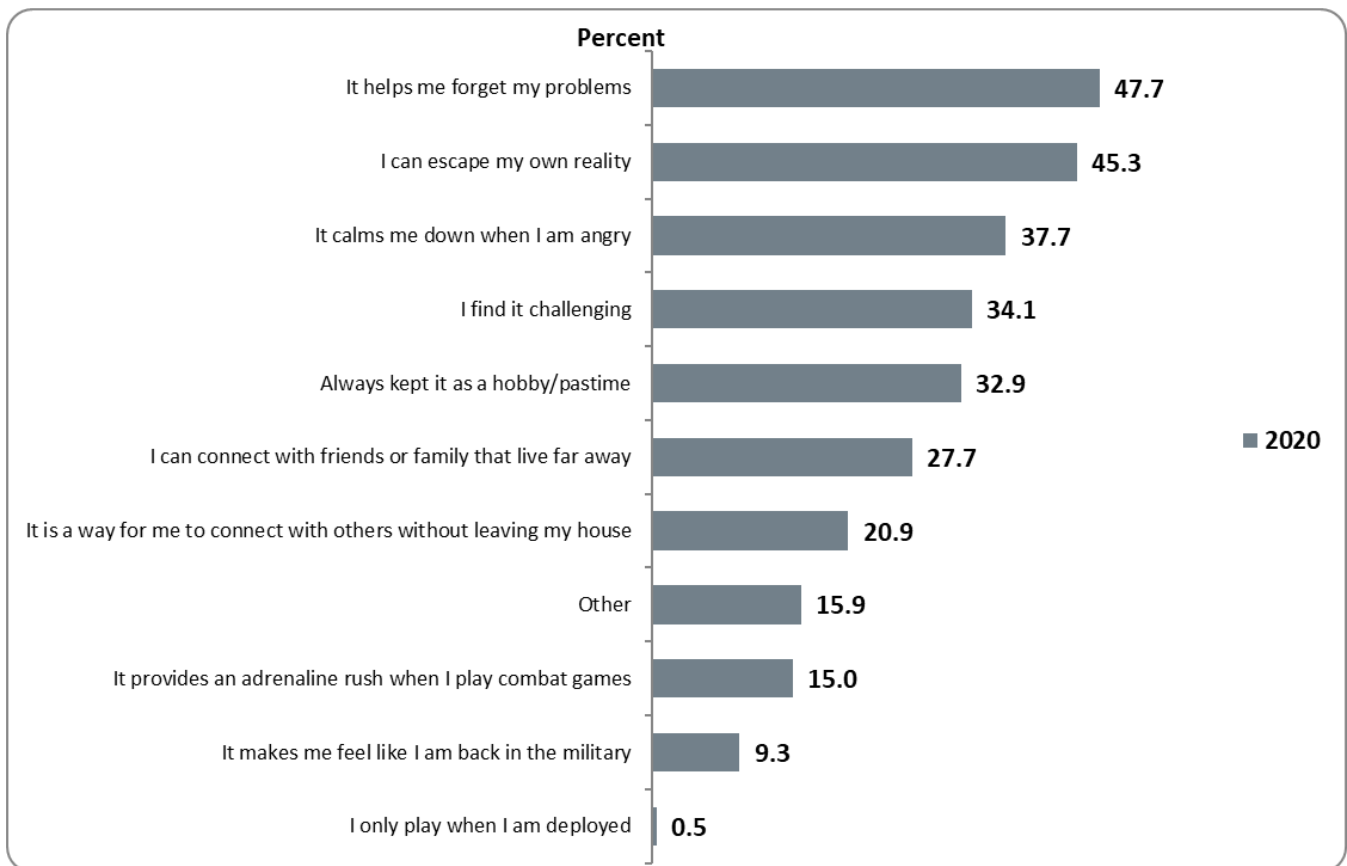
Table 17. Level of Agreement with Statements about Barriers to Physical Activity

Statement	Disagree	Neutral	Agree	Mean
Physical activity makes my pain or injury worse	17.2%	28.0%	54.8%	3.5
I'm concerned with safety or re-injuring myself	21.1%	26.1%	52.8%	3.4
It costs too much to participate in physical activity (like exercise, sports, etc.)	36.1%	33.3%	30.6%	2.9
Physical activity is hard for me due to my physical limitations or injury	28.0%	30.2%	41.8%	3.2
Don't participate in physical activity because I'm uncomfortable in social situations	40.3%	27.9%	31.8%	2.8
I don't have enough time to train or participate in physical activity	44.0%	34.6%	21.3%	2.7
Exercise facilities don't accommodate my injury	41.5%	40.9%	17.6%	2.6
Places for me to exercise are too far away	48.4%	32.7%	18.9%	2.6
I don't know how to exercise or create an exercise routine	53.3%	27.1%	19.6%	2.5

The survey also inquired about warriors' sedentary time, particularly time spent playing electronic games outside of school or work. On average, over the last 30 days, male warriors spent about 3.5 hours per day playing electronic games and female warriors spend about 3.1 hours per day outside of work or school.

Questions probing the reasons why warriors play electronic games are new to the survey this year. Figure 33 presents the findings. Warriors could mark all reasons that apply. Nearly half (47.7%) of warriors who play electronic games indicated that they do so because it helps them forget their problems. This reason is closely followed by the desire to escape reality (45.3%). Playing games also helps calm more than a third (37.7%) of those who play electronic games when they are angry.

Figure 33. Reasons for Electronic Game Play, Among Those Who Play Electronic Games

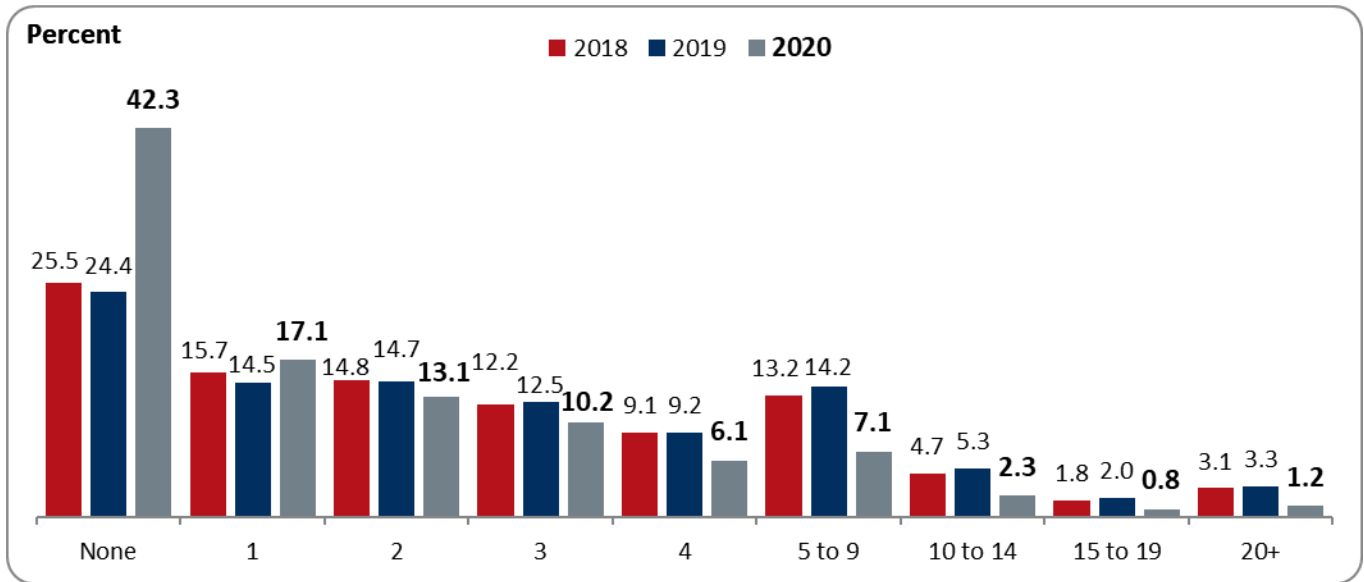


ACCESS TO HEALTH CARE SERVICES

Warriors were asked questions about the kinds of medical and mental health services they have received.

HEALTH CARE VISITS FOR SELF. The survey asks how many times warriors went to a doctor's office or clinic to get health care for themselves (not counting times they went to emergency rooms) during the past three months. About 40 percent (42.3%) of warriors had no visits, which is up sharply from findings in previous years and likely reflects the impact of COVID-19. A similar percentage (40.4%) had one to three visits. Just over 1 in 10 warriors (13.2%) had between four and nine visits in the past three months, while less than 5 percent (4.3%) had 10 or more in the past three months (Figure 34).

Figure 34. Number of Doctor/Clinic Visits in the Past 3 Months



USING CANNABIS TO TREAT CONDITIONS. Two new survey questions were added in 2019 about treating conditions with cannabis. When asked in 2020 about use of cannabis in regard to health care, 16.3 percent of warriors (17.0% in 2019) reported using cannabis to treat a mental or physical condition, and just under half (46.9% in 2020; 49.2% in 2019) know a veteran who is using cannabis to treat a condition. These findings are similar to last year.

HEALTH CARE VISITS TO ANY PROFESSIONAL FOR MENTAL HEALTH/EMOTIONAL PROBLEMS. Less than half of warriors (43.2% in 2020; 52.0 in 2019) visited any health care professional (such as a doctor, a psychologist, or a counselor) in the past three months to get help with issues such as stress or emotional, alcohol, drug, or family problems.

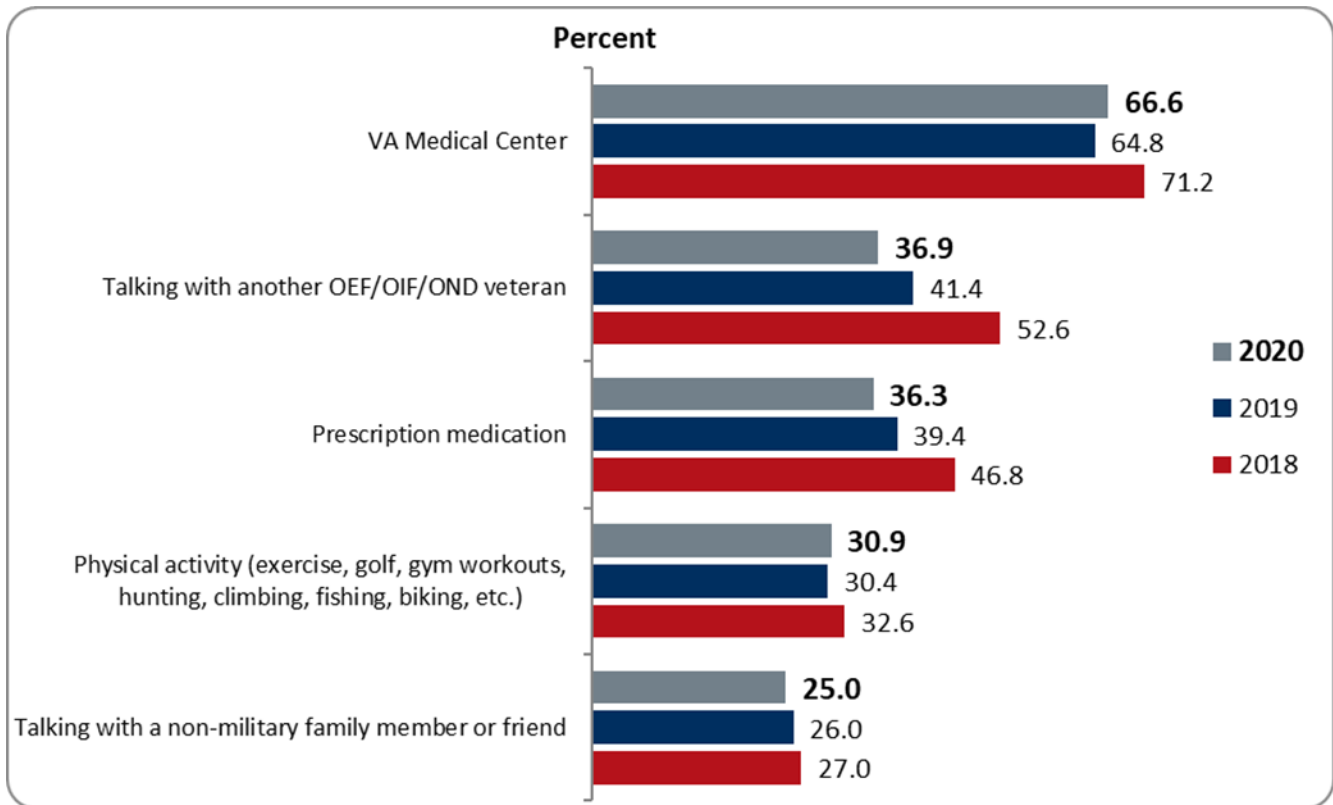
MEDICATION USE FOR MENTAL HEALTH OR EMOTIONAL PROBLEMS. Among warriors who had visited any health care professional in the past three months about issues such as stress, emotional, alcohol, drug, or family problems, 74.5 percent were prescribed medication for a mental health or emotional problem. Most (93.3%) took the medications for the duration as prescribed by their doctor.

RESOURCES AND TOOLS USED TO HELP COPE WITH FEELINGS OF STRESS OR EMOTIONAL OR MENTAL HEALTH CONCERNS. Only 5.2 percent of warriors indicated that they have not had any feelings of stress or emotional or mental health concerns. Consequently, resources and tools used to help cope with feelings of stress or emotional or mental health concerns are relevant for the vast majority of warriors. Warriors were presented with a list of 21 resources or tools and asked to mark all that they have used (Figure 35). About 67 percent (66.6%) cited a VA medical center, which is similar to the 65 percent reporting use of this resource last year.

- About 37 percent (36.9%) cited “Talking with another OEF/OIF/OND veteran,” which is down from the 41.4 percent citing this resource last year; and
- About 36 percent (36.3%) cited use of prescription medication, which is down from the 39.4 percent citing this resource last year.

Other resources and tools beyond the top three that were used by about one-fourth of warriors included physical activity (30.9%), talking with a non-military family member or friend (25.0%), and prayer/church/God/religion (23.3%, not shown). Only about 1 in 5 (18.0%, not shown) warriors with concerns said they used the Vet Center. Among those who used various resources for support, warriors used an average of 4.1 (median=3.0) sources of support.

Figure 35. Top 5 Resources and Tools for Coping with Stress or Concerns*



*2018 data are among warriors who had deployed, while 2019 and 2020 is among all warriors.

DIFFICULTY IN GETTING MENTAL HEALTH CARE/PUTTING OFF CARE/DID NOT GET NEEDED CARE. An estimated 28.9 percent of warriors had difficulty getting mental health care, put off getting such care, or did not get the care they needed during the past 12 months. These warriors were asked about the reasons for their difficulties in getting mental health care.

REASONS FOR NOT GETTING MENTAL HEALTH CARE. Among all warriors who experienced difficulties accessing mental health care, “other” or an unspecified reason was the most frequently cited reasons for putting off mental health care (Table 18). This represents a change from previous years and is consistent with COVID-19 influencing activities. Table 18 presents findings from the 2019 survey to contextualize this year’s findings. There have been several changes in the order of reasons cited. Excluding “other” unspecified reasons, the top five specific barriers cited reflect both personal and procedural concerns:

- Inconsistent treatment or lapses in treatment – 32.4%
- Experienced difficulty scheduling appointments – 29.7%
- Uncomfortable with existing resources within DoD or VA – 27.4%
- Personal schedule (work, school, family responsibilities) – 27.0%
- Felt that treatment might bring up painful or traumatic memories that you wish to avoid – 26.8%

Adverse effects on career or stigma associated with seeking mental health treatment were considerations for about 15 percent of warriors:

- Concerned future career plans would be jeopardized – 14.7%
- Felt you would be considered weak for seeking mental health treatment – 14.7%
- Felt you would be stigmatized by peers or family for seeking mental health treatment – 13.8%

Among the least frequently cited reasons for difficulties getting mental health care were employer support (5.8%), lack of health insurance (6.3%), the cost of copays (6.4%), and lack of knowledge about DoD or VA resources (7.2%).

Table 18. Reasons for Not Getting Mental Health Care Among Warriors Who Experienced Difficulties, 2019 and 2020

Reasons for Not Getting Mental Health Care Among Warriors Who Experienced Difficulties Getting Care	Percent	
	2019	2020
“Other,” unspecified reasons	29.3	34.8
Inconsistent treatment or lapses in treatment	31.8	32.4
Experienced difficulty scheduling appointments	28.5	29.7
Not comfortable with existing resources within DoD or VA	29.4	27.4
Personal schedule (work, school, family responsibilities) conflicted with hours of operation of VA health care facilities	35.0	27.0
Felt treatment might bring up painful or traumatic memories you wished to avoid	32.2	26.8
Lack of VA mental health resources in your geographic area	24.2	22.1
VA requirements made it difficult to get referrals to needed specialty treatment for your mental health problems	18.1	18.9
Personal schedule (work, school, family responsibilities) conflicted with hours of operation of non-VA health care facilities	21.5	16.5
Felt as if treatment was not appropriate for your set of symptoms	16.4	14.9
Felt as if you would be considered weak for seeking mental health treatment	19.1	14.7
Concerned that your future career plans would be jeopardized by seeking treatment	19.6	14.7
Felt you would be stigmatized by your peers or family for seeking mental health treatment	17.4	13.8
Felt as if treatment was not appropriate to your OEF/OIF/New Dawn (OND) experience	13.3	12.1
Lack of non-government mental health providers in your region	8.6	8.4
No peer support available	9.6	8.2
Felt as if you might lose your job if you asked for time off to receive mental health care services	11.6	8.1
Lacked transportation, or the money for transportation, to get to mental health care services	11.6	7.7
Did not know about existing resources available within the DoD or VA	7.8	7.2
Could not afford copays and other costs not covered by your health insurance	8.4	6.4
Did not have health insurance that covers your mental health care problems	7.0	6.3
Did not have your employer's support for taking the amount of time off needed to get to and receive mental health care services	7.5	5.8

WARRIORS EXPERIENCING DIFFICULTIES WHO USE THE VA AS THEIR PRIMARY HEALTH CARE PROVIDER. Nearly three quarters (74.0%) of warriors who have VA health coverage and at least one other source of health care coverage use the VA as their primary health care provider. For warriors who experience difficulty getting mental health care and use the VA as the primary source for care, the most frequently cited barrier to care was “other” or unspecified reasons (35.5%). This is consistent with COVID-19 influencing behaviors and operations. Table 19 presents findings from the 2019 survey to contextualize this year’s findings. Excluding “other” unspecified reasons, the top five specific barriers cited reflect both personal concerns and access issues:

- Inconsistent treatment or lapses in treatment (resulting, for example, from canceled appointments or the need to switch providers) – 34.7%
- Experienced difficulty scheduling appointments – 31.5%
- Personal schedule conflicted with operation of VA health care – 28.0%
- Felt that treatment might bring up painful or traumatic memories that they wanted to avoid – 26.8%
- Uncomfortable with existing resources within DoD or VA – 25.3%

Stigma is also a concern for a notable minority within the subgroup of warriors who use the VA as their primary health care provider:

- Concerned that your future career plans would be jeopardized – 12.7%
- Felt you would be considered weak for seeking mental health treatment – 12.3%
- Felt you would be stigmatized by peers or family for seeking mental health treatment – 11.9%

Among the least frequently cited reasons for difficulties getting mental health care were lack of insurance coverage (3.6%), cost of copays (4.5%), lack of employer support (4.8%), and lack of knowledge of DoD or VA resources (5.7%).

Table 19. Reasons for Not Getting Mental Health Care Among Warriors Who Experienced Difficulties and Use the VA as Their Primary Health Care Provider, 2019 and 2020

Reasons for Not Getting Mental Health Care Among Warriors Who Experienced Difficulties Getting Care and Use the VA as the Primary Health Care Provider	Percent	
	2019	2020
“Other,” unspecified reasons	31.0	35.5
Inconsistent treatment or lapses in treatment	37.2	34.7
Experienced difficulty scheduling appointments	30.5	31.5
Personal schedule (work, school, family responsibilities) conflicted with hours of operation of VA health care facilities	36.3	28.0
Felt treatment might bring up painful or traumatic memories you wished to avoid	33.3	26.8
Not comfortable with existing resources within DoD or VA	29.0	25.3
Lack of VA mental health resources in your geographic area	25.6	23.5
VA requirements made it difficult to get referrals to needed specialty treatment for your mental health problems	18.9	19.5
Personal schedule (work, school, family responsibilities) conflicted with hours of operation of non-VA health care facilities	21.4	15.2
Felt as if treatment was not appropriate for your set of symptoms	17.5	14.4

Concerned that your future career plans would be jeopardized by seeking treatment	19.1	12.7
Felt as if you would be considered weak for seeking mental health treatment	17.5	12.3
Felt as if treatment was not appropriate to your OEF/OIF/New Dawn (OND) experience	13.9	12.0
Felt you would be stigmatized by your peers or family for seeking mental health treatment	16.2	11.9
No peer support available	10.3	8.6
Lack of non-government mental health providers in your region	8.4	7.8
Lacked transportation, or the money for transportation, to get to mental health care services	10.9	7.1
Felt as if you might lose your job if you asked for time off to receive mental health care services	10.6	7.0
Did not know about existing resources available within the DoD or VA	6.8	5.7
Did not have your employer's support for taking the amount of time off needed to get to and receive mental health care services	7.0	4.8
Could not afford copays and other costs not covered by your health insurance	7.1	4.5
Did not have health insurance that covers your mental health care problems	3.6	3.6

DIFFICULTY IN GETTING PHYSICAL HEALTH CARE/PUTTING OFF CARE/DID NOT GET NEEDED CARE. About one-third (33.1%) of warriors had difficulty getting health care for physical injuries or problems, put off getting such care, or did not get the care they needed during the past 12 months. These warriors were asked about the reasons for their difficulties in getting physical health care.

REASONS FOR NOT GETTING PHYSICAL HEALTH CARE. The most frequently cited reason for not getting needed physical health care is “other” or an unspecified reason, 36.2 percent (Table 20). This is consistent with COVID-19 impacting behavior and operations. About one-third (34.2%) of warriors indicated on the 2020 WWP annual survey that they encountered difficulties scheduling appointments. This is the most frequently cited specific reason for not getting physical health care, and the percentage citing this reason is similar to the one-third (33.3%) of warriors who report this reason in the 2019 survey. The next most common, specific reasons cited reflect procedural and personal concerns, as well as access issues:

- VA requirements made it difficult to get referrals to needed specialty treatment for physical problems – 30.0%
- Inconsistent treatment or lapses in treatment – 29.1%
- Lack of availability in VA specialty clinics (orthopedics, dental, etc.) – 29.1%
- Personal schedule (work, school, family responsibilities) conflicted with the hours of operation of VA health care facilities – 23.5 %

Among the reasons least frequently cited are lack of available peer support (4.3%), lack of employer support (5.4%), lack of non-governmental providers (6.9%), and lack of knowledge of existing DoD or VA resources (6.9%).

Table 20. Reasons for Not Getting Health Care for Physical Problems Among Warriors Who Experienced Difficulties Getting Care, 2019 and 2020

Reasons for Not Getting Health Care for Physical Problems Among Warriors Who Experienced Difficulties Getting Care	Percent	
	2019	2020
“Other,” unspecified reasons	30.3	36.2
Experienced difficulty scheduling appointments	33.3	34.2
VA requirements made it difficult to get referrals to needed specialty treatment for your physical problems	30.1	30.0
Inconsistent treatment or lapses in treatment (e.g., canceled appointments, had to switch providers)	26.6	29.1
Lack of availability in VA specialty clinics (orthopedics, dental, etc.)	28.0	29.1
Personal schedule (work, school, family responsibilities) conflicted with hours of operation of VA health care facilities	31.1	23.5
Not comfortable with existing resources within DoD or VA	19.1	16.7
Personal schedule (work, school, family responsibilities) conflicted with hours of operation of non-VA health care facilities	19.4	16.2
Lack of resources in your geographic area for your physical health care problems	15.4	15.5
Could not afford copays and other costs not covered by your health insurance	11.0	8.8
Did not have health insurance to cover care for your physical health problems	9.8	8.4
Felt as if you might lose your job if you asked for time off to receive health care services for your physical problems	9.5	7.4
Lacked transportation, or the money for transportation, to get health care services for your physical health problem	9.4	7.0
Did not know about existing resources available within the DoD or VA	7.8	6.9
Lack of non-government health providers in your region who treat your type of physical problem	6.9	6.9
Did not have your employer’s support for taking the amount of time off needed to get to and receive health care services for your physical health problems	7.0	5.4
No peer support available	4.7	4.3

WARRIORS EXPERIENCING DIFFICULTIES WHO USE THE VA AS THEIR PRIMARY HEALTH CARE PROVIDER. Among warriors who experienced difficulty in getting health care for their physical problems and have multiple sources of health care coverage but use the VA as their primary health care provider, four of the top five cited reasons are those cited earlier by all warriors who experienced difficulties. Table 21 presents the findings from the 2020 annual survey. To contextualize some of the changes in this year’s findings, Table 21 includes findings from the 2019 annual survey.

- Similar to the findings for all warriors who had difficulties getting health care for physical problems, among the reasons least frequently cited by warriors who use the VA as their primary health care provider are lack of available peer support (4.3%), lack of employer support (5.4%), lack of non-governmental providers (6.9%), and lack of knowledge of existing DoD or VA resources (6.9%).

Table 21. Reasons for Not in Getting Health Care for Physical Problems Among Warriors Who Experienced Difficulties and Use the VA as Their Primary Health Care Provider

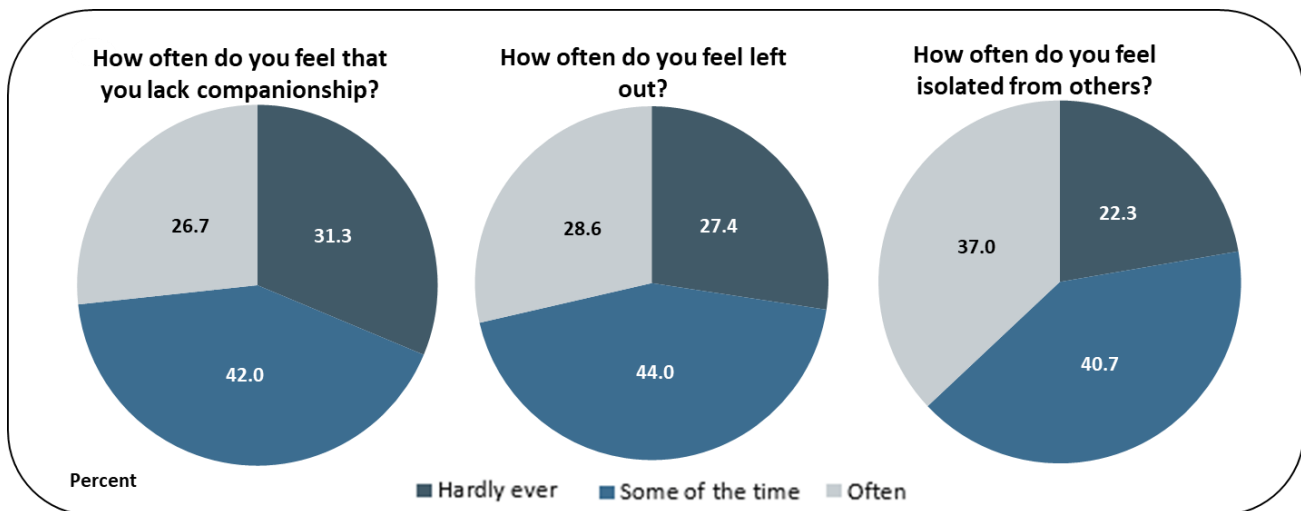
Reasons for Not Getting Health Care for Physical Problems Among Warriors Who Experienced Difficulties Getting Care and Use the VA as Their Primary Health Care Provider	Percent	
	2019	2020
“Other,” unspecified reasons	32.3	36.2
Experienced difficulty scheduling appointments	36.9	34.2
VA requirements made it difficult to get referrals to needed specialty treatment for your physical problems	34.4	30.0
Inconsistent treatment or lapses in treatment (e.g., canceled appointments, had to switch providers)	29.4	29.1
Lack of availability in VA specialty clinics (orthopedics, dental, etc.)	32.3	29.1
Personal schedule (work, school, family responsibilities) conflicted with hours of operation of VA health care facilities	31.6	23.5
Not comfortable with existing resources within DoD or VA	18.6	16.7
Personal schedule (work, school, family responsibilities) conflicted with hours of operation of non-VA health care facilities	18.1	16.2
Lack of resources in your geographic area for your physical health care problems	16.7	15.5
Could not afford copays and other costs not covered by your health insurance	9.7	8.8
Did not have health insurance to cover care for your physical health problems	5.7	8.4
Felt as if you might lose your job if you asked for time off to receive health care services for your physical problems	8.9	7.4
Lacked transportation, or the money for transportation, to get health care services for your physical health problem	8.8	7.0
Did not know about existing resources available within the DoD or VA	7.2	6.9
Lack of non-government health providers in your region who treat your type of physical problem	7.3	6.9
Did not have your employer’s support for taking the amount of time off needed to get to and receive health care services for your physical health problems	6.2	5.4
No peer support available	4.4	4.3

LONELINESS AND SOCIAL SUPPORT

In addition to diet, exercise habits, and sleep behavior, perceptions of social isolation can influence well-being. Loneliness involves feelings of isolation regardless of the number of human contacts. It is a perceived socioemotional state. To explore perceptions of loneliness, the 2020 WWP annual survey uses a 3-item version of the University of California, Los Angeles (UCLA) Loneliness Scale. Response options include 1=*hardly ever*, 2=*some of the time*, or 3=*often*. Scale scores range from 3 to 9, with higher scores indicating a greater degree of perceived loneliness. Scores in the range of 3-5 indicate that the respondent is not lonely, while scores in the range of 6 to 9 indicate that the respondent is lonely.

Figure 36 presents responses to the three items in the UCLA 3-item Loneliness Scale. Just over one quarter (26.7%) of warriors indicate that they *often* “feel that [they] lack companionship,” while nearly one third (31.3%) indicate that they *hardly ever* “feel that [they] lack companionship.” Nearly 30 percent (28.6%) of warriors indicate that they *often* “feel left out,” while a similar percentage (27.4%) *hardly ever* do. Slightly less than 40 percent (37.0%) indicate that they *often* “feel isolated from others,” while about 20 percent (22.3%) of warriors feel that they *hardly ever* do.

Figure 36. Warriors’ Perceptions about Their Social Relationships



The mean UCLA 3-item Loneliness Scale score for warriors is 6.1 (median=6.0), indicating that, on average, warriors tend to feel lonely. This score is similar to that from the National Health and Resilience in Veterans Study, which found an average score of 6.0 among Veterans with PTSD (Nichter, et al., 2020). Mean scores differ slightly by gender: The mean score for female warriors is 6.6 and the mean score for male warriors is 6.0. Overall, about 68 percent of warriors score in the range indicating that they are lonely. By gender, 63.1 percent of male warriors score in the range indicating that they are lonely, and 72.9 percent of female warriors score in this range.

Despite feelings of loneliness, 79.9 percent of warriors feel there are people they can depend on to help if they really need it, and 75.6 percent of warriors feel there are people who enjoy the same social activities that they do.

RESILIENCE AND ATTITUDES

The 2020 WWP Annual Survey includes the 10-item version of the Connor-Davidson Resilience Scale (CD-RISC 10). The CD-RISC 10 assesses resilience — the ability to overcome adversity — among those who have been exposed to extremely stressful situations and may suffer from forms of anxiety including PTSD. The CD-RISC 10 instrument was developed by Campbell-Sills and Stein as an abbreviated version of the original 25-item instrument. Scale scores for the CD-RISC 10 range from 0 to 40, with higher scores indicating greater resilience.

Table 22 presents responses to the 10 questions used to explore current attitudes that reflect resilience among warriors. Response options for each statement include *not at all true*, *rarely true*, *sometimes true*, *often true*, and *true nearly all of the time*. About 1 in 5 warriors (19.7%) indicated that, “I think of myself as a strong person” *nearly all of the time*. Similar percentages indicated that they try to see the humorous side of problems (19.8%) or are able to adapt when changes occur (17.6%) *nearly all of the time*. The findings have been relatively stable over the last few years. Mean scores for each item range between 2.2 and 2.5, suggesting that the typical warrior finds most of the statements between *sometimes* and *often true*.

Table 22. Percent of Warriors by Responses to Questions about Current Attitudes

	Not at all true	Rarely true	Sometimes true	Often true	True nearly all of the time
I am able to adapt when changes occur.					
2020	3.0	8.7	37.1	33.6	17.6
2019	3.4	10.1	36.9	32.8	16.7
2018	3.7	9.4	36.2	33.0	17.7
I tend to bounce back after illness, injury, or other hardships.					
2020	3.6	9.8	38.0	31.7	16.9
2019	4.1	12.5	38.2	29.6	15.7
2018	4.5	12.3	38.7	29.0	15.5
I can deal with whatever comes my way.					
2020	3.1	8.1	37.2	32.9	18.7
2019	3.3	9.8	37.6	32.0	17.3
2018	3.7	9.3	37.5	32.0	17.6
I try to see the humorous side of things when I am faced with problems.					
2020	5.0	11.6	34.4	29.2	19.8
2019	5.9	13.7	33.3	28.0	19.1
2018	5.6	12.7	33.3	29.2	19.2
Having to cope with stress can make me stronger.					
2020	5.6	12.9	41.7	26.6	13.2
2019	6.7	15.3	40.0	24.8	13.1
2018	6.6	14.7	40.2	25.1	13.4

Table 22. Percentage of Warriors by Responses to Questions about Current Attitudes (continued)

	Not at all true	Rarely true	Sometimes true	Often true	True nearly all of the time
I believe I can achieve my goals, even if there are obstacles.					
2020	3.2	9.9	38.1	31.1	17.8
2019	3.6	11.6	37.4	30.1	17.4
2018	3.8	11.3	38.4	30.0	16.5
Under pressure, I stay focused and think clearly.					
2020	5.3	12.5	36.0	29.8	16.5
2019	5.9	13.8	35.5	28.7	16.0
2018	6.3	13.3	35.4	29.3	15.7
I am not easily discouraged by failure.					
2020	6.3	16.7	37.5	25.8	13.7
2019	7.3	17.6	36.1	25.4	13.6
2018	6.9	17.2	36.9	25.9	13.0
I think of myself as a strong person when dealing with life's challenges and difficulties.					
2020	3.7	10.2	35.6	30.7	19.7
2019	4.7	11.6	35.5	28.9	19.3
2018	4.7	11.4	35.4	30.2	18.3
I am able to handle unpleasant or painful feelings like sadness, fear, and anger.					
2020	5.2	13.3	38.7	26.6	16.2
2019	6.5	15.1	37.5	26.0	14.9
2018	6.9	15.0	38.0	25.4	14.7

The mean CD-RISC 10 score for WWP warriors is 24.3 (median 24.0). This is much lower than mean scores found for the general U.S. population: 31.8 (Campbell-Sills et al., 2009). The WWP warrior mean score is also notably lower than the mean score in a study of combat veteran couples, 31 (Melvin et al., 2012). The National Post-Deployment Adjustment Study, a study of U.S. Iraq and Afghanistan-era veterans, also found higher resilience, with a mean score of 30.5 (Green et al., 2014). These comparators indicate that the resilience of warriors is notably diminished.

While the mean CD-RISC score is low, indicating lower resilience, warriors do tend to find fulfillment in their lives. Just under half of warriors (46.4%) somewhat or strongly agree that they get fulfillment in the things they do each day, and just over half (53.4%) somewhat or strongly agree that they get fulfillment from personal relationships.

FINANCIAL WELLNESS

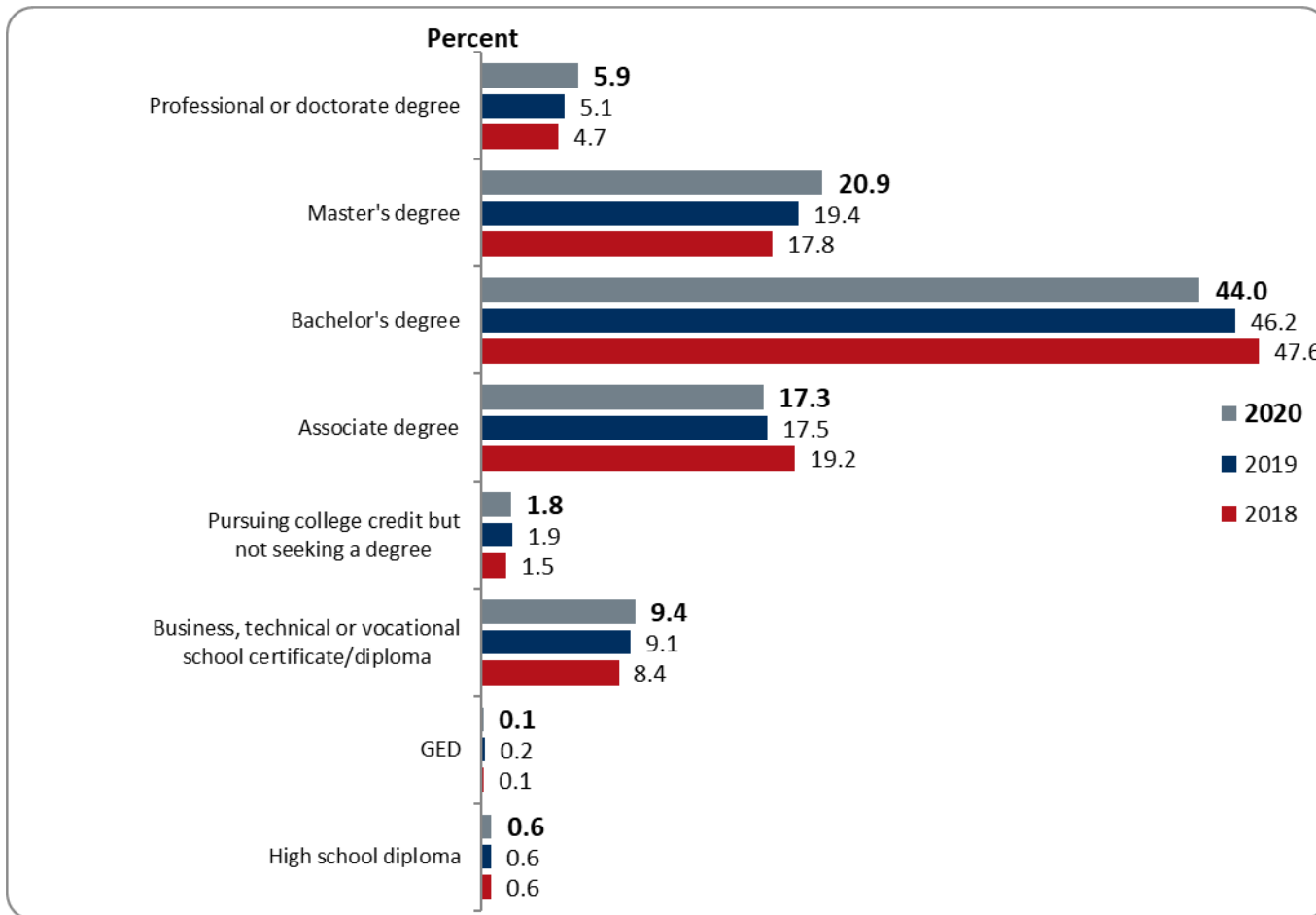
In addition to health care concerns among warriors, WWP is dedicated to promoting the economic empowerment of wounded warriors. The WWP survey includes questions to measure the economic and financial status of WWP warriors.

EDUCATION

CURRENT SCHOOL ENROLLMENT. As noted earlier in this report, 58.5% of WWP warriors have less education than a bachelor’s degree (62.9% in 2019). About 18 percent of warriors are now enrolled in school and pursuing the following (Figure 37):

- A bachelor’s degree or higher – 70.9%
- An associate degree – 17.3%
- Business, technical, or vocational school training leading to a certificate or diploma – 9.4%

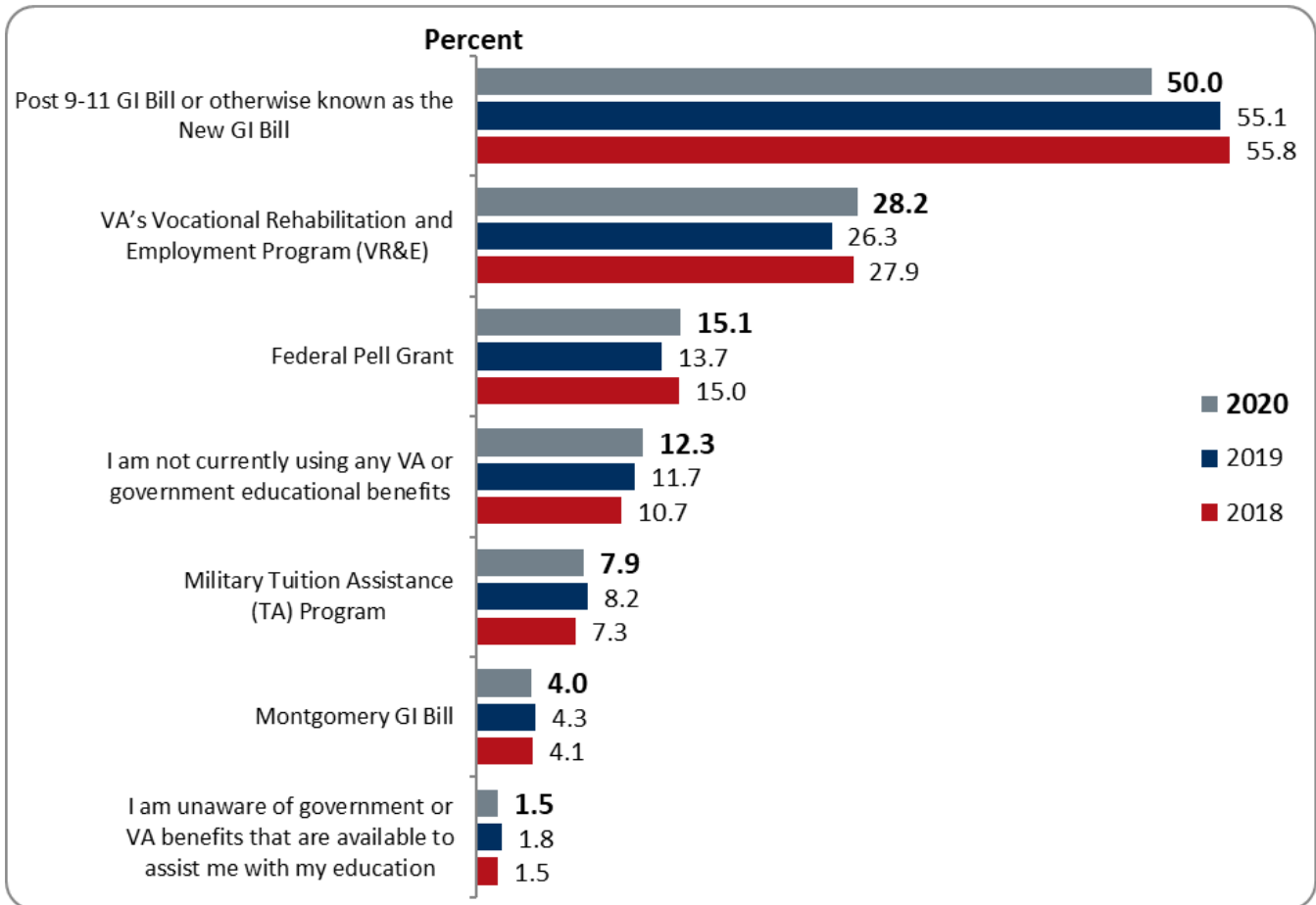
Figure 37. Degree or Level of Schooling Pursued by School Enrollees



Warriors currently pursuing more education are using various government benefits and programs to advance their education as shown in Figure 38:

- Post-9/11 GI Bill – 50.0% (down from 55.1% in 2019)
- VA’s Vocational Rehabilitation and Employment Program (VR&E) – 28.2% (note that the program is now called Veteran Readiness and Employment Service; however, it was called Vocational Rehabilitation and Employment Program at the time of data collection)
 - Of the warriors enrolled in the VR&E program, 50.2 percent are using “Employment Through Long-Term Services – Training/Education.”

Figure 38. VA or Government Education Benefits Used by School Enrollees

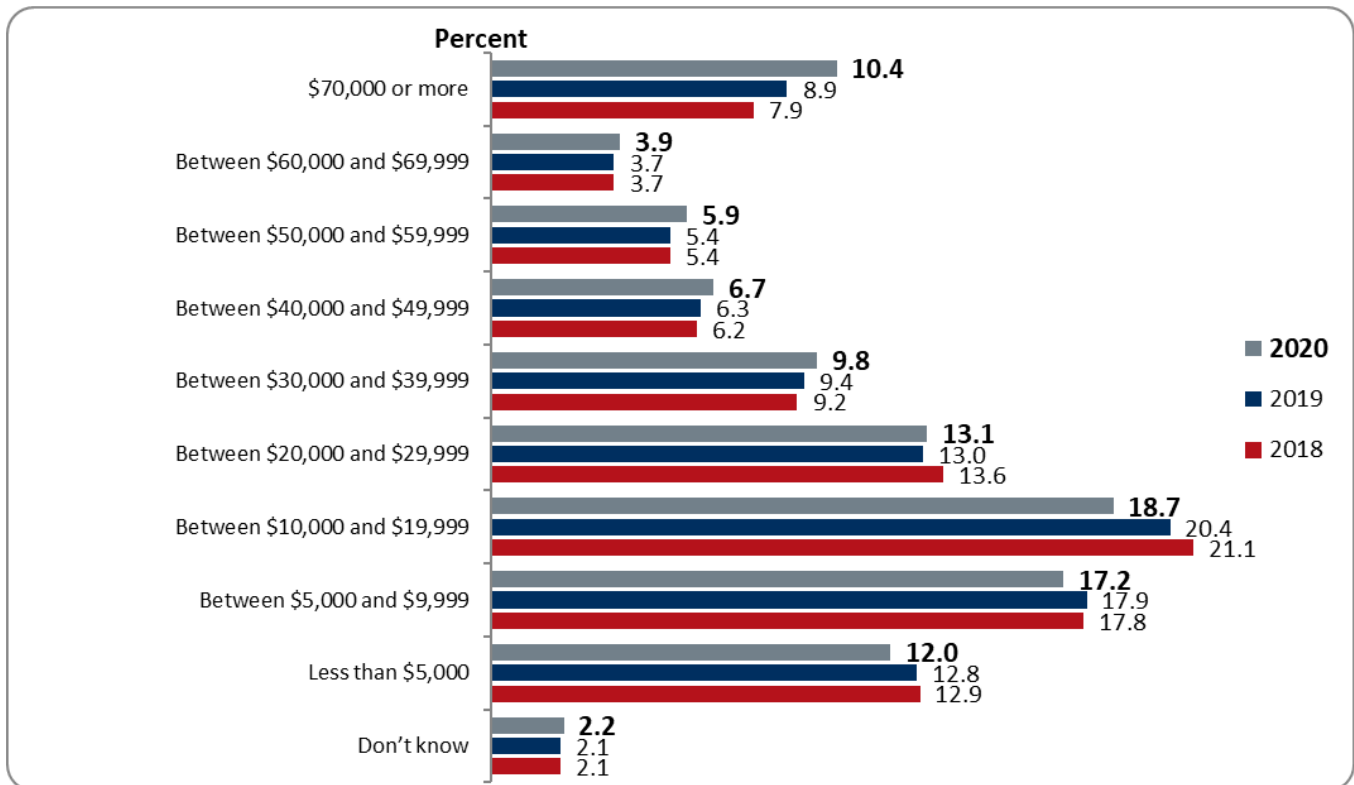


NOTE: Percentages do not sum to 100 because respondents could check more than one benefit.

WARRIOR STUDENT LOAN DEBT. As warriors pursue further education, some are incurring student loan debt. Just under a quarter of warriors (22.4%) currently have unpaid student loans. Among the general American public, about 22 percent of adults age 30 to 44 have student loan debt (Pew Research Center, 2019). Among the group of warriors with student loans (Figure 39):

- 12.0 percent owe less than \$5,000;
- 49.0 percent owe between \$5,000 and \$29,999; and
- 36.8 percent owe \$30,000 or more (33.8% in 2019).

Figure 39. Warrior Student Loan Debt



EMPLOYMENT AND UNEMPLOYMENT STATUS

EMPLOYMENT STATUS. Among all warriors, 52.5 percent are employed in paid work either full time or part time. Warriors who reported they were either not currently employed but actively looked for work in the past four weeks and could have accepted a job in the previous week or could have done so except for a temporary illness are classified as unemployed. The employed and unemployed warriors seeking employment make up the warrior labor force. The 2020 labor force participation rate is 61.6 percent (number in labor force/number in population). The unemployment rate for 2020 non-active-duty warriors is 16.2 percent (number of unemployed/number in the non-active-duty warrior labor force). The increase in unemployment reported in the 2020 survey is largely explained by the COVID-19 pandemic – 41.3 percent of warriors *strongly agreed* or *somewhat agreed* with the statement **I have experienced challenges related to my employment status** in regards to their experience with the pandemic. See the *Note* below discussing the estimated unemployment rate.

The survey asks wounded warriors who are neither employed nor unemployed (38.4% of warriors) to select which of eight reasons best explains why they are not in the labor force. Warriors selected the following:

- 27.4% – Mental health issue from a service-connected disability (31.4% in 2019)
- 25.0% – Retired (18.1% in 2019)
- 18.2% – Physical injury from a service-connected disability (19.0 in 2019)
- 11.1% – Receiving Individual Unemployability Benefits (11.5% in 2019)
- 8.4% – In school or in a training program (11.1% in 2019)
- 4.0% – Family responsibilities (3.4% in 2019)
- 3.9% – Would have liked to work but have become discouraged about finding work and did not look for work in the past four weeks (3.4% in 2019)
- 2.4% – Other (non-service-connected disability) medical/health condition (or treatment) prevents them from working (2.1% in 2019)

Warriors classified as “discouraged” and not in the labor force (about 1.5% of warriors) were asked to select the main reason they did not seek work in the past four weeks from among four possible reasons:

- 33.0% – Have been unable to find work and quit looking (29.6% in 2019 and 32.7% in 2018)
- 27.0% – Do not have the necessary schooling, training, skills, or experience
- 23.6% – No job available in their line of work or area (17.7% in 2019)
- 16.4% – Belief that employers discriminate against them because of age or disability or some other reason (25.7% in 2019)

The top rows in Table 23 show employment percentages, labor force participation rates, and unemployment rates for all warriors from 2018 to 2020. The unemployment rate for non-active-duty warriors was declining in past years but spiked in 2020, likely because of the high unemployment rates nationwide due to the COVID-19 pandemic — 16.2% in 2020 compared with 11.5% in 2019, and 12.3 percent in 2018.

Table 23. Estimated Employment, Labor Force Participation, and Unemployment Rates for Non-Active-Duty Warriors (2018–2020)

	2020	2019	2018
Percentage employed	49.5%	52.7%	52.1%
Labor force participation rate	59.2%	59.8%	59.5%
Unemployment rate	16.2%	11.5%	12.3%

BLS, Current Population Survey

Civilian noninstitutional population, 16 years and over (May 2020)

Persons with a disability:

- Labor force participation rate = 20.4 percent
- Employment – population ratio = 16.7 percent
- Unemployment rate = 17.9 percent

Persons without a disability:

- Labor force participation rate = 66.0 percent
- Employment – population ratio = 57.5 percent
- Unemployment rate = 12.8 percent

Gulf War II-era Veterans:

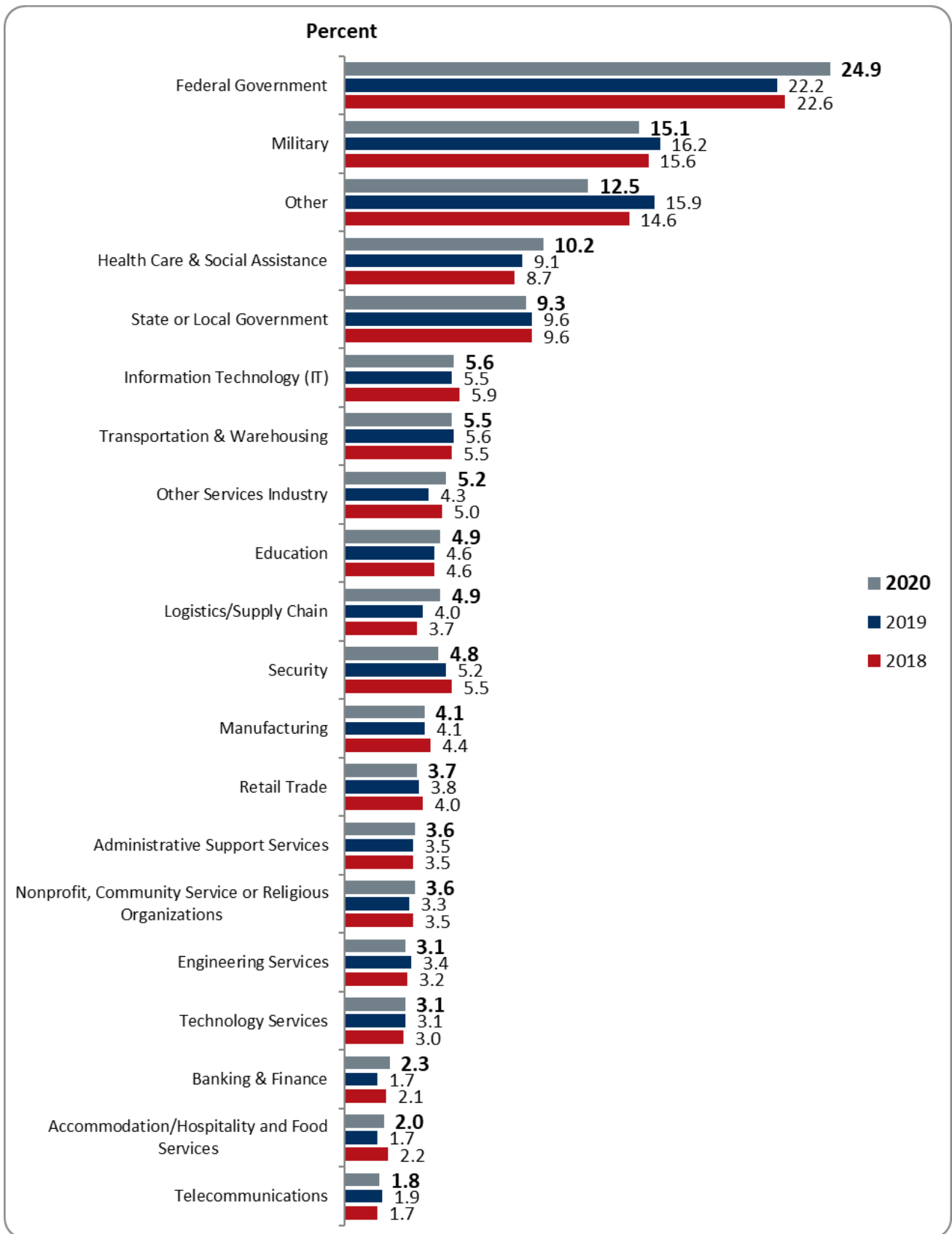
- Labor force participation rate = 79.1 percent
- Employment – population ratio = 71.0 percent
- Unemployment rate = 10.3 percent

Source: Table A-5, A-6 (https://www.bls.gov/news.release/archives/empsit_06052020.htm)

UNEMPLOYED. As noted earlier, about 16 percent of WWP warriors who are not on active duty are unemployed. About 80 percent of unemployed warriors looked for a job for 16 weeks or less, a large increase from 63.4 percent in 2019, indicating that more warriors were short-term unemployed because of COVID-19. Just over 1 in 10 unemployed warriors (11.9%) meet the BLS definition of long-term unemployed (persons who were jobless for 27 weeks or longer). Again, this notable shift from last year (25.6%) is largely because of the significant shift in the population of unemployed warriors (from long-term to short-term unemployment for the group as a whole). In fact, this trend is similar to the general public, in which 22.2 percent of unemployed civilians were long-term unemployed in May 2019, compared with 5.6 percent in May 2020 (U.S. Bureau of Labor Statistics, May 2020).

EMPLOYED AND SELF-EMPLOYED. There are 52.5 percent of warriors working either full time or part time, and 7.3 percent are self-employed. Figure 40 shows the distribution of employed warriors by industry. As one might expect, the most common “industries” where warriors are employed are the federal government (24.9%) and the military (15.1%). Just over one-third (34.2%) work in the public sector (federal, state, and local government).

Figure 40. Industries in Which Warriors Work



NOTE: Percentages do not sum to 100 because respondents could check more than one industry.

BLS, Current Population Survey (Annual Averages 2019; August 2019)

Employed Gulf War II-era veterans: Served since September 2001

- Much more likely than nonveterans to work in the public sector:
 - 25 percent vs. 13 percent of nonveterans
- Much more likely than nonveterans to work for the federal government:
 - 15 percent vs. 2 percent of nonveterans

Gulf War II-era veterans with a service-connected disability:

- 29.4 percent worked in federal, state, or local government, compared with 18.4 percent of veterans without service-connected disabilities
- 21.5 percent worked for the federal government, compared with 8.6 percent of veterans without service-connected disabilities

Source: Table 8 (<http://www.bls.gov/news.release/pdf/vet.pdf>).

Nearly half of warriors are employed full time (45.1%), and 7.5 percent are employed part time. Weeks worked and weekly hours for full-time and part-time employees remain similar to those in previous years (Table 24). However, the weekly wage has increased for both full- and part-time workers. Full-time employees saw an increase of about \$50 per week, while part-time employees saw an increase of \$30.

Table 24. Summary Employment Information, by Full-Time and Part-Time Work Status

	Mean	Median
Employed full time		
During the past 12 months, how many weeks did you work?		
2020	44 weeks	
2019	44 weeks	
2018	45 weeks	
During the weeks you worked in the past 12 months, how many hours did you usually work each week?		
2020	42 hrs/wk	
2019	42 hrs/wk	
2018	43 hrs/wk	
How much is your current weekly wage?		
2020		\$930/wk
2019		\$880/wk
2018		\$850/wk
Employed part time		
During the past 12 months, how many weeks did you work?		
2020	28 weeks	
2019	30 weeks	
2018	30 weeks	
During the weeks you worked in the past 12 months, how many hours did you usually work each week?		
2020	26 hrs/wk	
2019	25 hrs/wk	
2018	24 hrs/wk	
How much is your current weekly wage?		
2020		\$280/wk
2019		\$250/wk
2018		\$200/wk

Satisfaction with employment is higher among full-time workers than part-time workers. Over half of full-time employed warriors (56.8%) are *satisfied*, *very satisfied*, or *totally satisfied* with their employment, compared with only 37.3 percent of part-time employed warriors (Figure 41).

Figure 41. Level of Satisfaction with Employment, by Full-Time and Part-Time Status

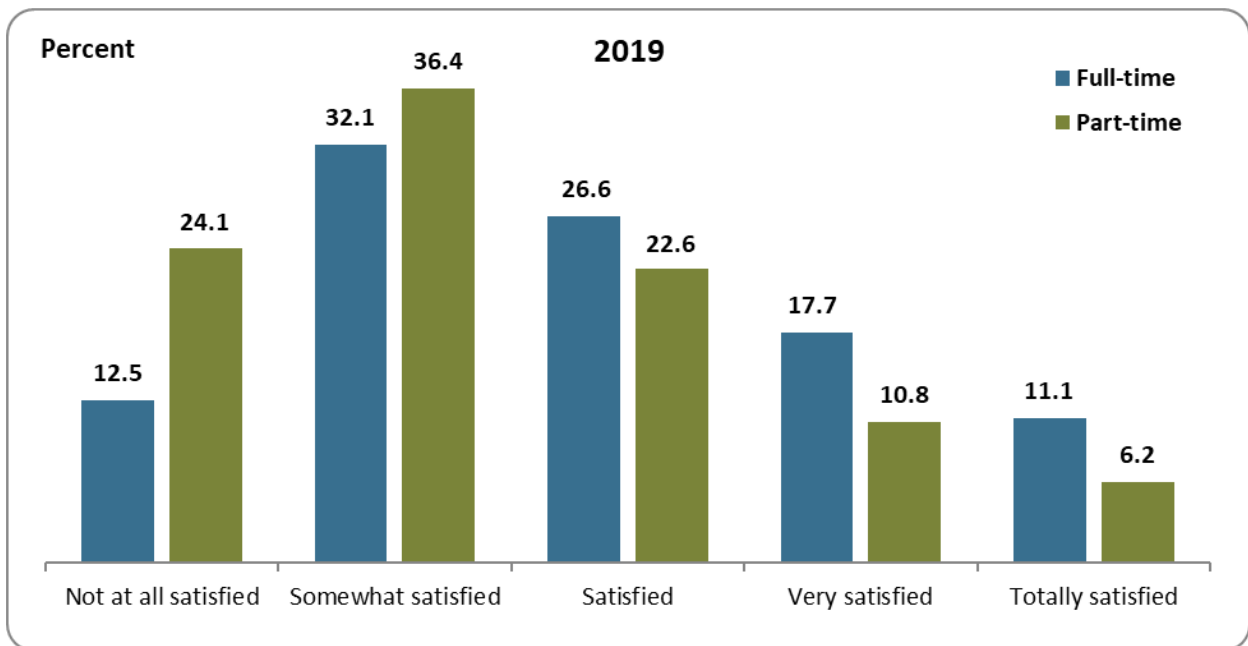
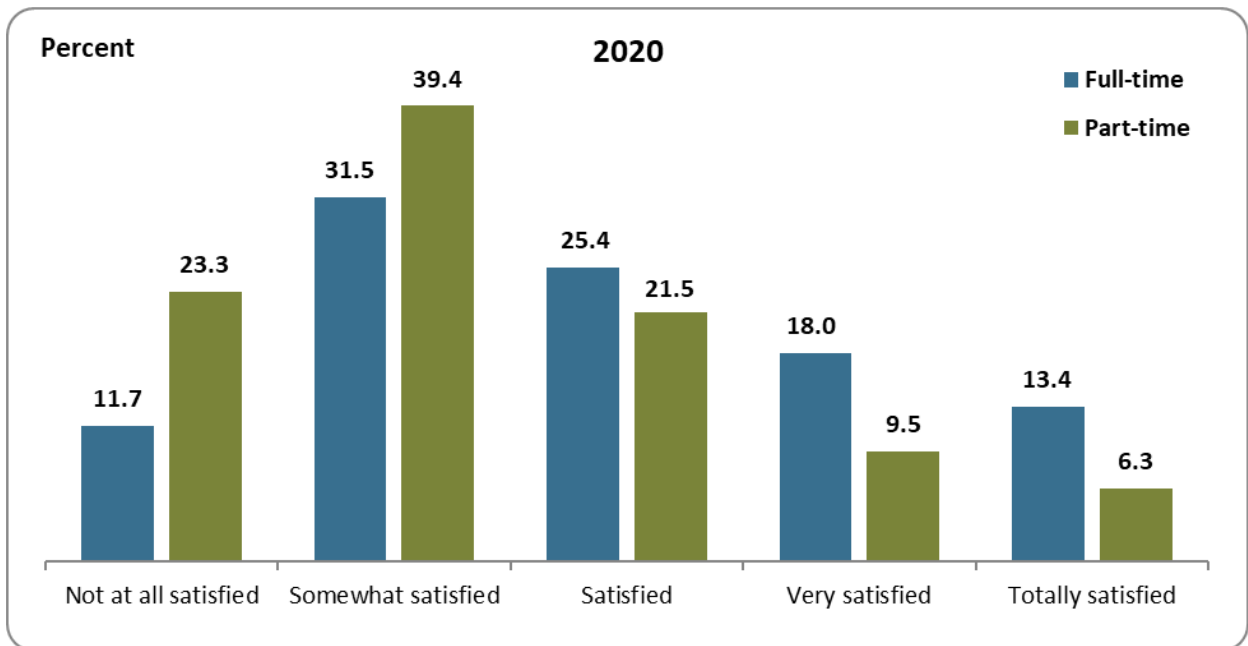
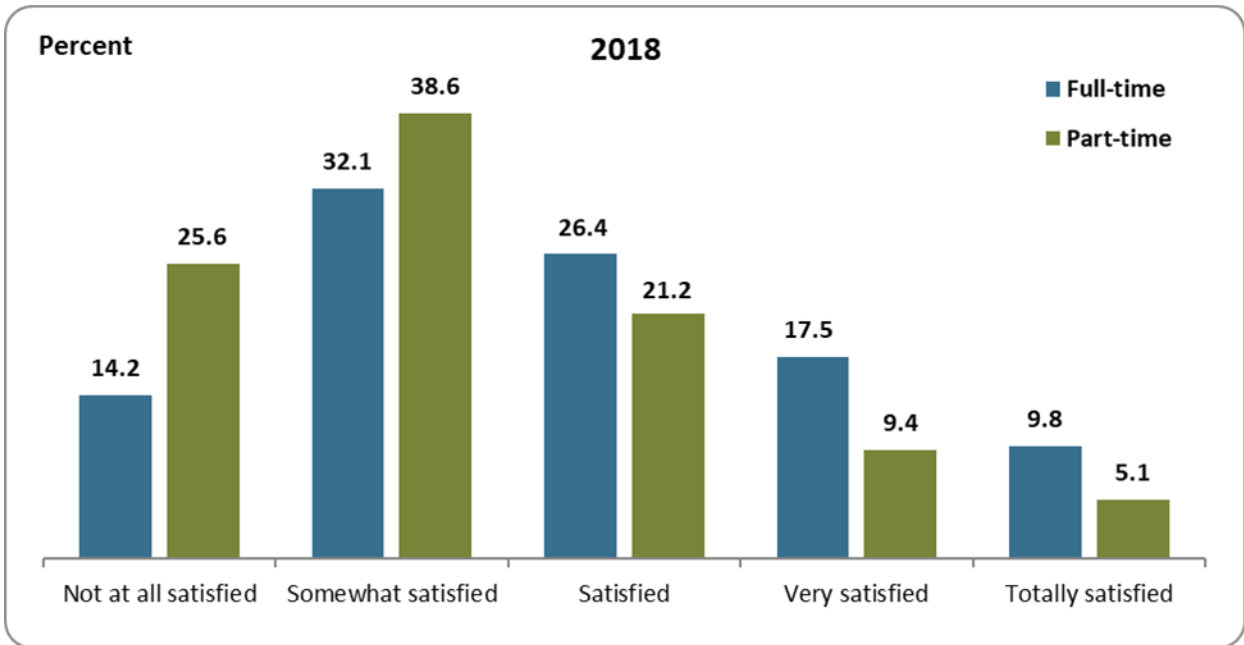


Figure 41. Level of Satisfaction with Employment, by Full-Time and Part-Time Status (continued)

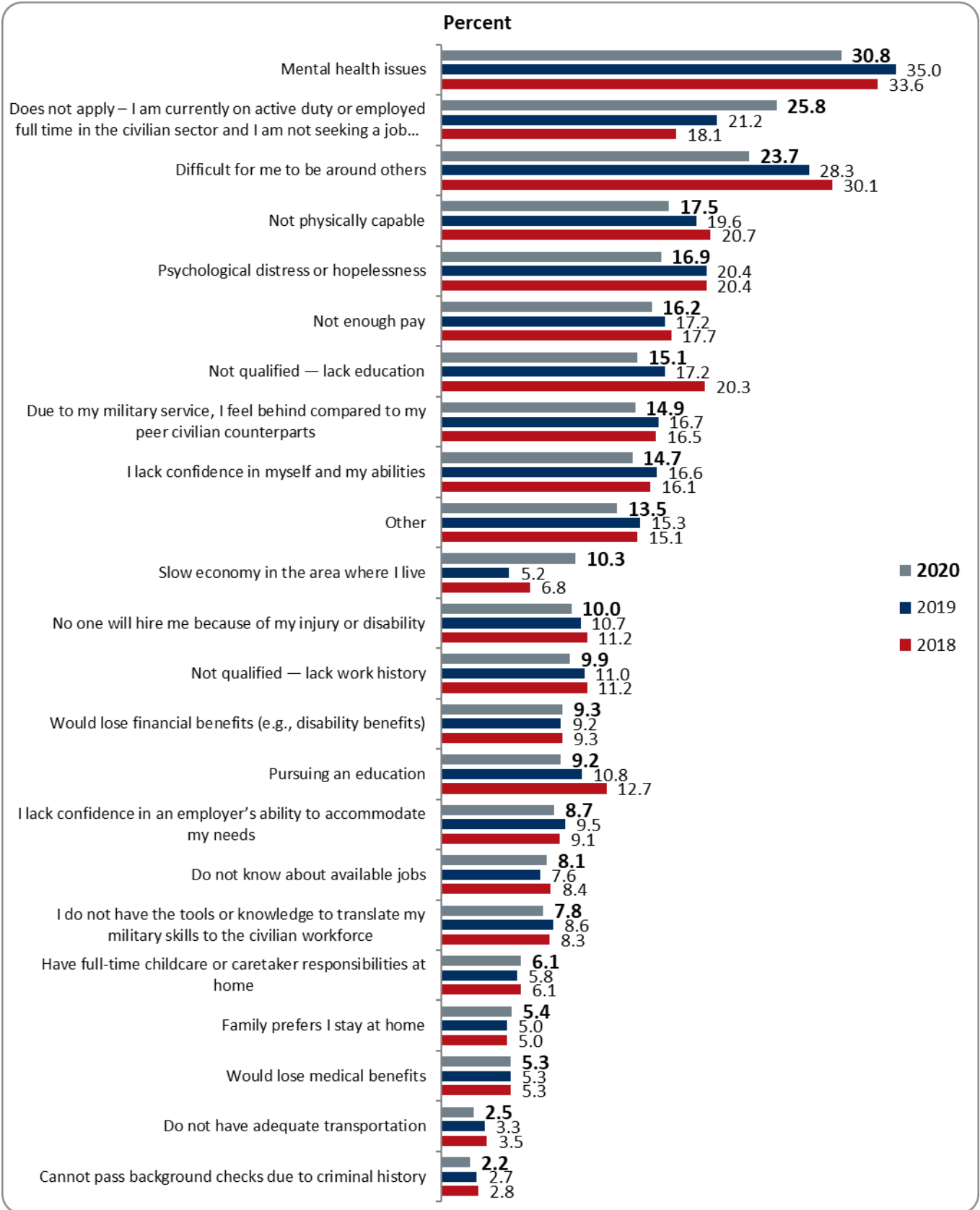


Similar to last year, satisfaction with employment is also higher among workers whose employers have an affinity group for veterans or a veteran mentorship program. Only about a quarter (27.1%) of working warriors have such a program. Among those warriors, 20.9 percent are totally satisfied with their employment; of those who do not have an affinity group or mentorship program, only 9.8 percent are totally satisfied with their employment.

ALL WARRIORS. All warriors were asked which factors make it more difficult for them to obtain employment or change jobs. About three-fourths (74.2%) of all warriors selected at least one factor. Top findings are similar to 2019, though the top two factors dropped by five percentage points each:

- For many warriors, both “mental health issues” (30.8%; 35.0% in 2019) and “difficult for me to be around others” (23.7%; 28.3% in 2019) made it difficult to obtain or change jobs (Figure 42).
- For about 15 to 17 percent of warriors in 2020, the following factors contributed to difficulties in getting or changing jobs: “lack confidence in myself and my abilities,” “due to my military service, I feel behind compared to my civilian peers,” “not qualified — lack education,” “not enough pay,” “psychological distress or hopelessness,” and “not physically capable.”

Figure 42. Factors Making It Difficult to Obtain Employment or Change Jobs



TOP TWO FACTORS MAKING IT DIFFICULT TO OBTAIN JOBS OR CHANGE JOBS, BY LABOR FORCE STATUS. The findings on difficulties in obtaining or changing jobs varied by labor force status. The top two factors for each labor force group remained the same as in 2019, for all groups except the unemployed:

- Employed full time: “not enough pay” (16.7%) and “not qualified — lack education” (14.3%)
- Employed part time: “mental health issues” (32.0%) and “difficult for me to be around others” (22.9%)
- Unemployed: “mental health issues” (33.6%, down from 41.1% in 2019) and “not enough pay” (30.7%)
- Not in the labor force: “mental health issues” (57.6%) and “difficult for me to be around others” (44.4%)

With the exception of full-time employed warriors, problems surrounding emotional health continue to make it difficult for warriors to obtain or change jobs.

About a quarter of warriors (25.8%) indicated that no factors made it more difficult to obtain or change jobs. Among warriors who reported one or more factors (74.2%), the mean number of factors causing difficulty in obtaining or changing jobs was 3.5, and 4 in 10 warriors (40.0%) checked four or more factors that make it difficult to obtain employment or change jobs.

INCOME

As in the earlier WWP annual surveys, warriors were asked to report on two types of income received in the past 12 months: (1) income they earned from work (includes wages, salary, bonuses, overtime, tips, commissions, profit from self-employed professional practice or trade, and second jobs), including military reserve pay and rent from roomers or boarders; and (2) income received in the past 12 months from various benefit, cash assistance, and disability programs.

INCOME FROM WORK. Warriors reported the following amounts of earned income from work in the past 12 months in Table 25.

Table 25. Income from Work Amounts for All Warriors and Warriors Working Full Time and Part Time

Income in the past 12 months	All warriors	Working full time	Working part time
Less than \$10,000	36.1%*	3.6%	35.3%
\$10,000 to \$24,999	9.1%	6.7%	29.3%
\$25,000 to \$39,999	11.4%	15.8%	15.9%
\$40,000 to \$59,999	15.5%	26.3%	9.1%
\$60,000 or higher	22.2%	42.6%	5.5%
Don't know	5.7%	5.1%	5.0%

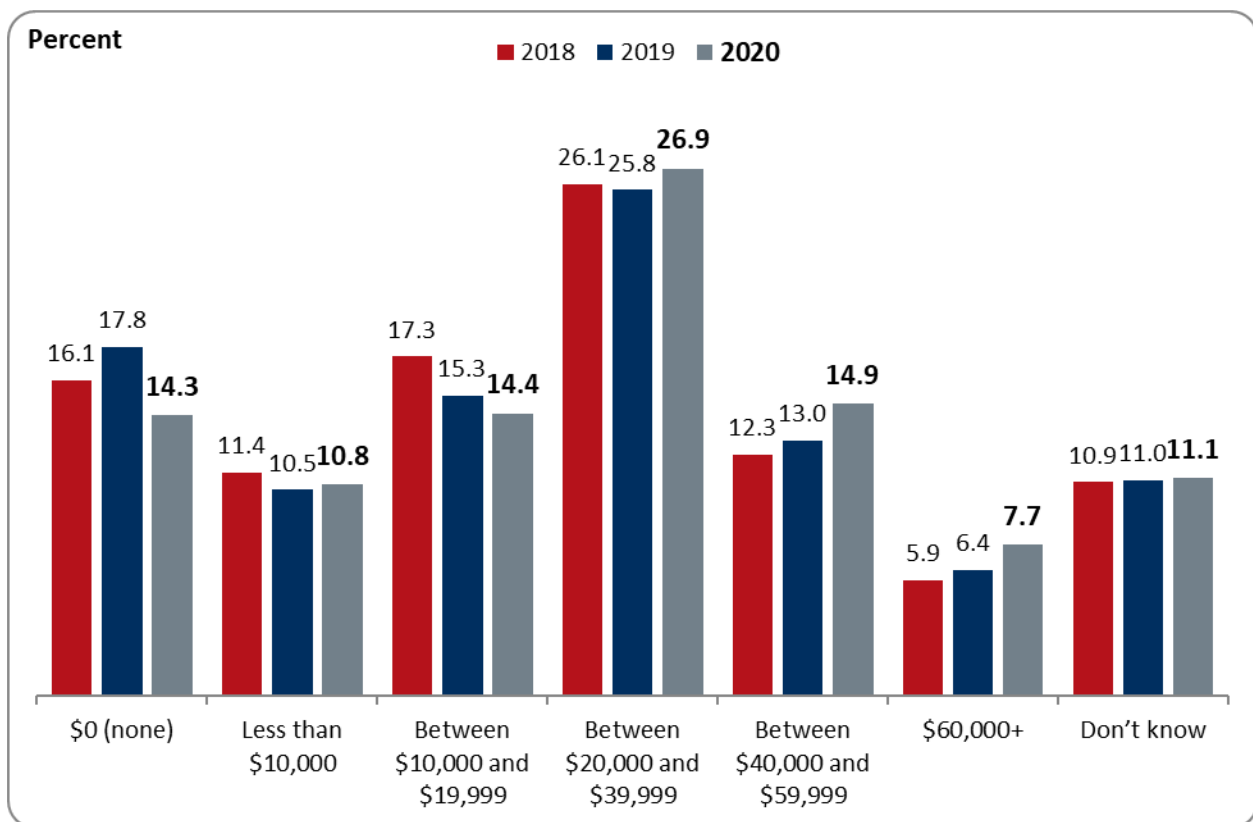
NOTE: *Includes 27.1% of warriors with no income.

Among warriors employed full time who reported their income for the past 12 months, about two-thirds (68.9%) earned at least \$40,000. Among warriors employed part-time, about half (64.6%) earned below \$25,000. This year, there was a slight increase in income among both full-time and part-time employed workers.

OTHER INCOME. Warriors were asked to report on income received in the past 12 months from various benefits, cash assistance, and disability programs. Warriors are continuing to receive more monetary assistance from governmental programs over the years. Nearly half of warriors (49.5%) received \$20,000 or more in income from those sources (Figure 43):

- \$20,000 to \$39,999 – 26.9%
- \$40,000 to \$59,999 – 14.9%
- \$60,000 or more – 7.7%

Figure 43. Money Received in Past 12 Months from Various Benefits, Cash Assistance, and Disability Programs



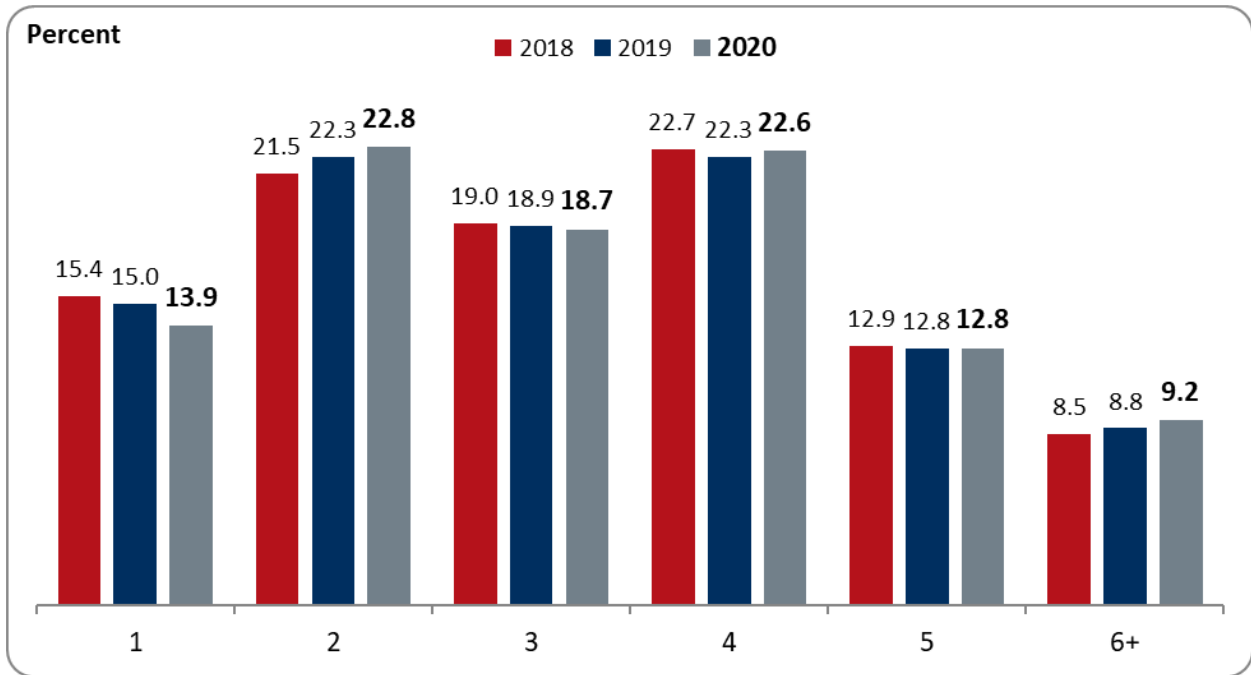
Just under 60 percent of warriors are currently sharing household expenses with a spouse or partner. Warriors reported the following amounts of spouse/partner income:

- \$0 – 12.3%
- \$1 to less than \$5,000 – 3.5%
- \$5,000 to less than \$25,000 – 22.2%
- \$25,000 to less than \$50,000 – 27.1%
- \$50,000 or more – 21.7%

These amounts are very similar to those reported in 2019. About 13 percent did not know their spouse/partner's income.

HOUSEHOLD SIZE. The number of people in the warrior's household supported by household income is usually four or fewer (Figure 44), but 1 in 5 households (22.0%) have five or more members. The percentage of households with one or two persons is 36.8 percent.

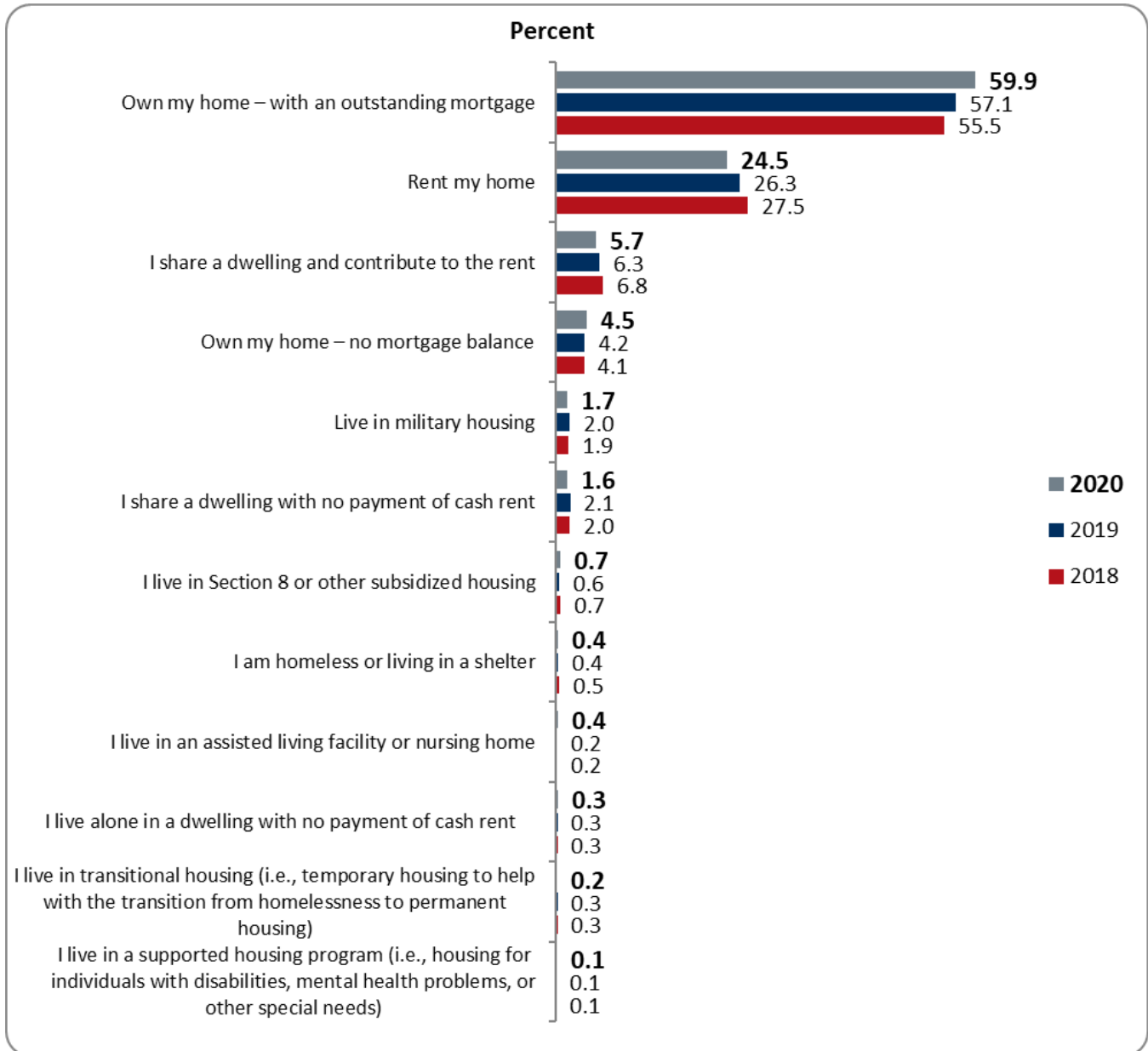
Figure 44. Number in Household Supported by Household Income



LIVING SITUATION

Most warriors own or rent their homes (Figure 45). The homeownership rate among warriors is 64.5 percent (reflecting a growing trend in homeownership — 61.3% in 2019 and 59.6% in 2018). As of the first quarter of 2020, the homeownership rate among all U.S. adults was 65.3 percent (U.S. Department of Commerce, 2020). About one in four warriors (24.5%) rent their homes.

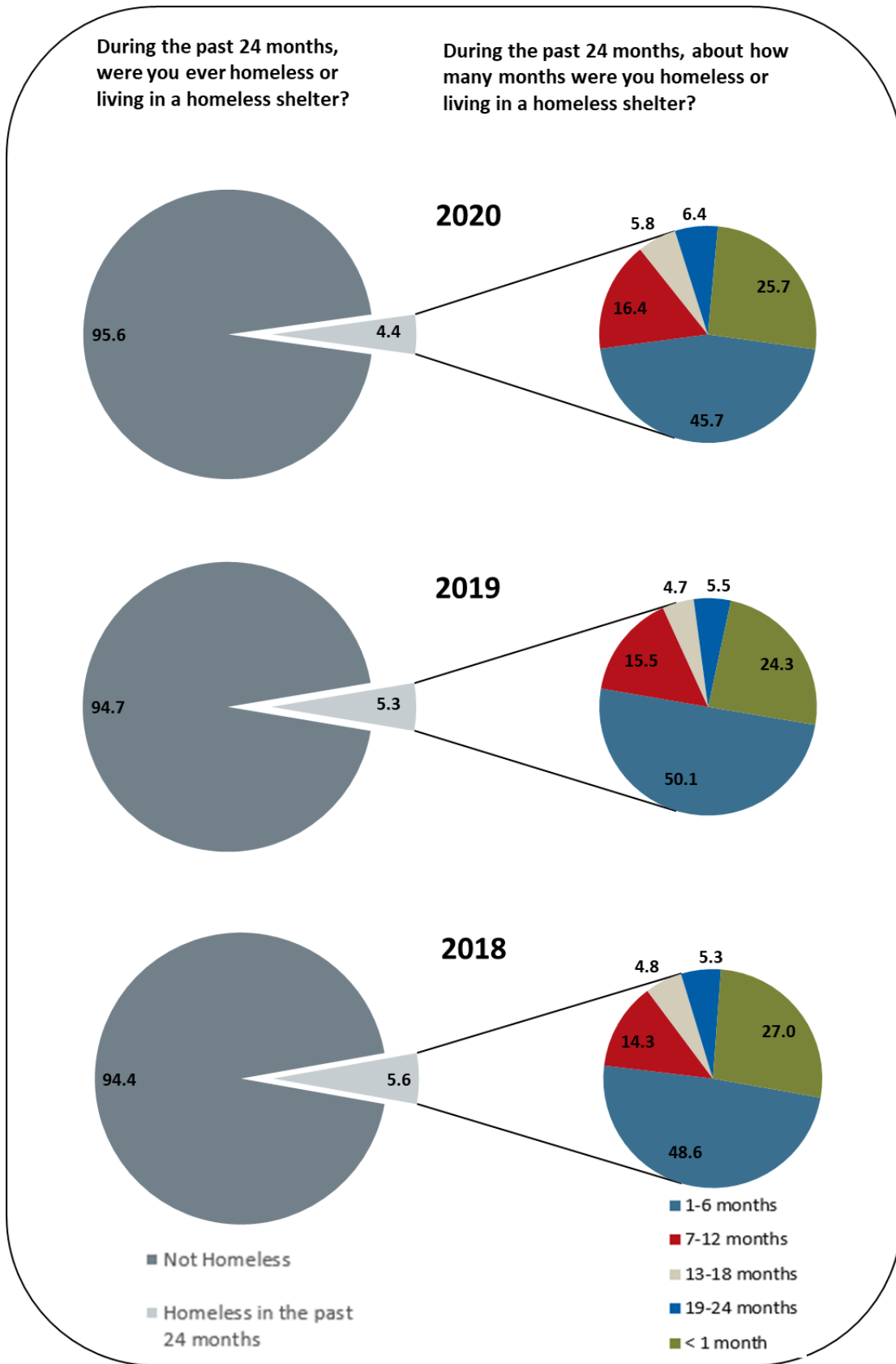
Figure 45. Current Living Arrangement



HOMELESSNESS. Homelessness among post-9/11 veterans continues to be a concern, though it appears to be declining slowly. While only 0.4 percent of warriors are currently homeless or living in a shelter, many more experienced homelessness over the past 24 months. About 4 percent of warriors (4.4%; 5.3% in 2019) were homeless or living in a homeless shelter during the past 24 months (Figure 46, left). Among them, 25.7 percent were homeless for less than 30 days, 45.7 percent were homeless for one to six months, 16.4 percent were homeless for seven to 12 months, and 12.2 percent (10.2% in 2019 and 11.4% in 2018) were homeless for 13-24 months.

The mean number of days among all homeless warriors was 173 days over the last 24 months, or just under six months (164 days in 2019). Those who were homeless for less than 30 days experienced homelessness for an average of two weeks. Those who were homeless for more than 30 days experienced an average of 226 days of homelessness over the past 24 months, an increase from 209 days in 2019.

Figure 46. Warrior Experience with Homelessness During the Past 24 Months



Factors related to homelessness during the past 24 months among warriors include PTSD, TBI, and drug problems. Homeless warriors also are more likely to be younger and female than all warriors. The following factors in Table 26 compare homeless warriors with the overall warrior population in order to contrast the differences.

Table 26. High Risk Factors Associated with Homelessness in the Past 24 Months

Factors	Warriors who were homeless in the past 24 months	All warriors
Younger than 35 years old	30.7%	21.7%
Female	25.2%	19.7%
TBI	41.6%	37.3%
Positive PCL5 score (for PTSD)	77.2%	54.1%
Used opiates in past year	12.3%	7.7%

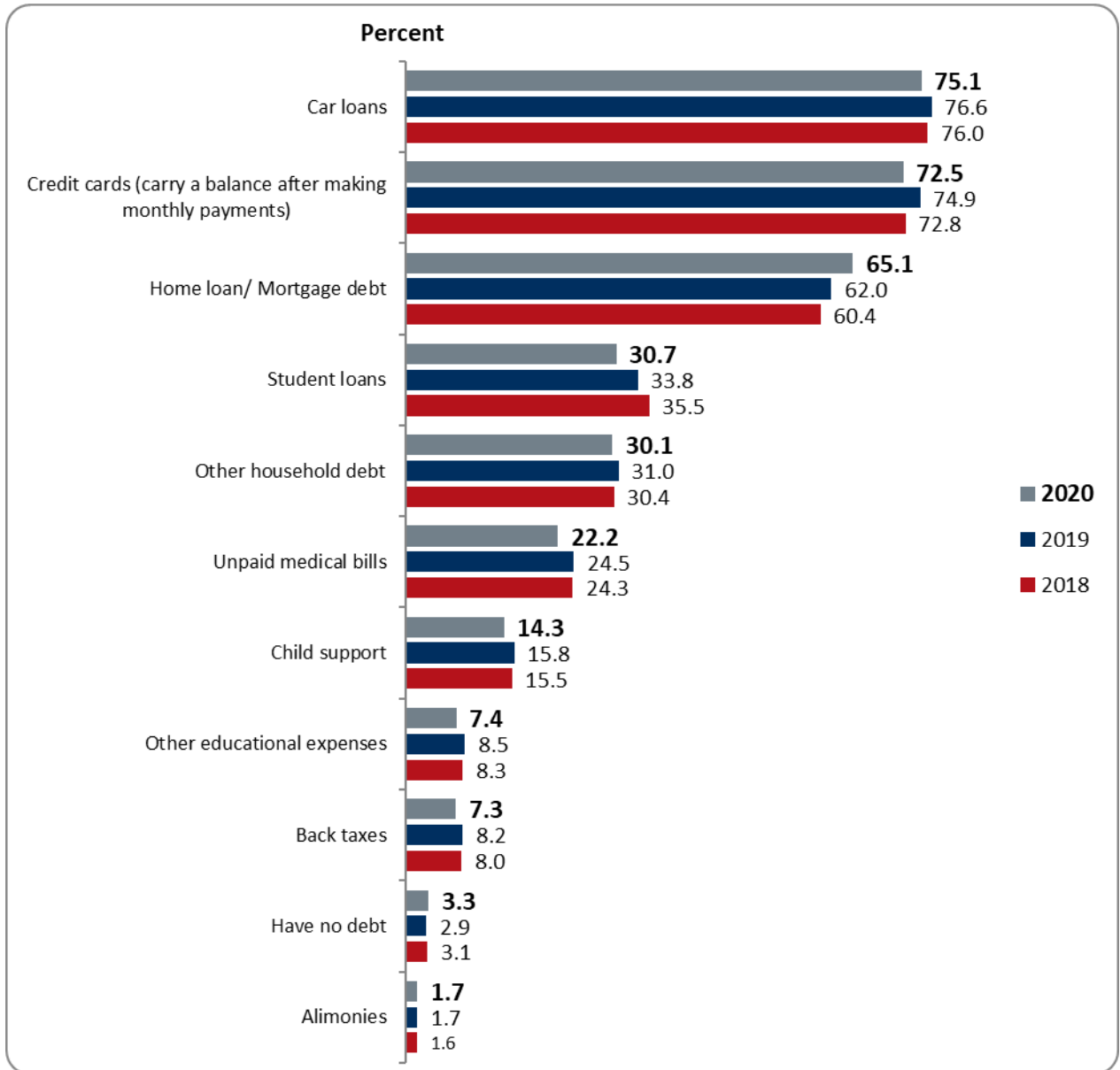
Also, among warriors who were homeless during the past 24 months, 19.9 percent received government housing assistance, such as rental assistance vouchers, transitional housing, supportive housing, or participation in a Housing First program.

DEBT

As an additional measure of their financial stability, the survey asked warriors to report all forms of current debt and their total outstanding debt.

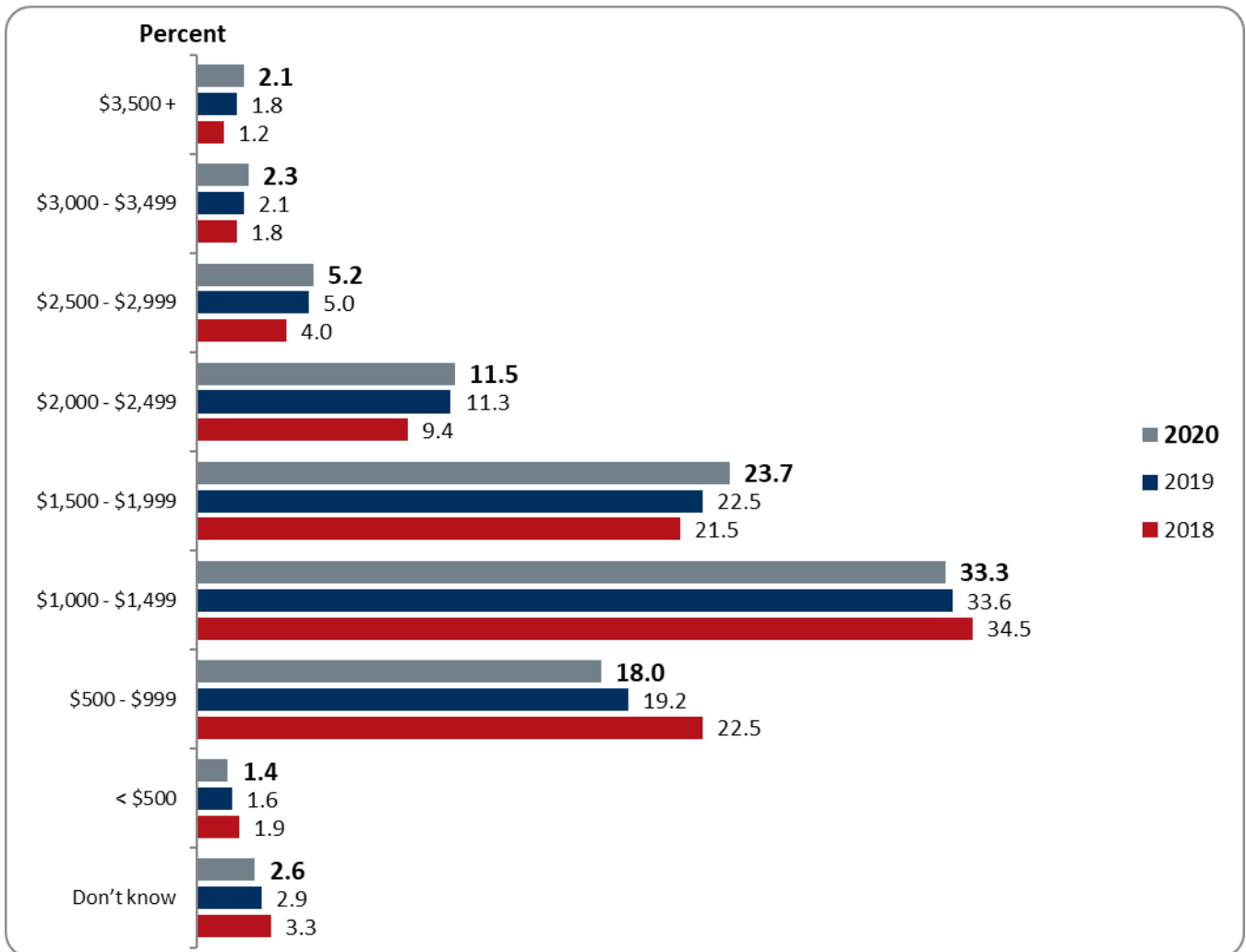
FORMS OF DEBT. As in 2019, car loans and credit card debt are the most common forms of debt in warrior households, followed by home loans/mortgage debt, student loan debt, and other household debt (Figure 47). A small percentage of warriors said they had no debt (3.3%). Among those with debt, only about 12 percent are seeking or receiving assistance to manage, reduce, or eliminate their debt.

Figure 47. Current Forms of Debt



TOTAL DEBT. Figure 48 shows the monthly mortgage payments paid by warriors with mortgage debt. Just over half (52.6%) pay less than \$1,500 a month on their mortgage. Excluding mortgage debt, just over half of warriors (53.4%) have at least \$20,000 in total debt.

Figure 48. Monthly Home Mortgage Payments



FINANCIAL MANAGEMENT

The 15-question Financial Management Behavior Scale (FMBS) (Dew & Xiao, 2011) was developed to measure overall financial management behavior and involves four subscales: savings and investment, cash management, credit management, and insurance. Scores range from one to five, where a higher score shows better financial management behavior. The following are the average scores for warriors, which are similar to those in 2019:

- Overall score = 3.3 (3.2 in 2019)
- Savings and investment subscale score = 2.7 (2.5 in 2019)
- Cash management subscale score = 3.7 (3.6 in 2019)
- Credit management subscale score = 3.2 (3.1 in 2019)
- Insurance subscale score = 3.7 (3.7 in 2019)

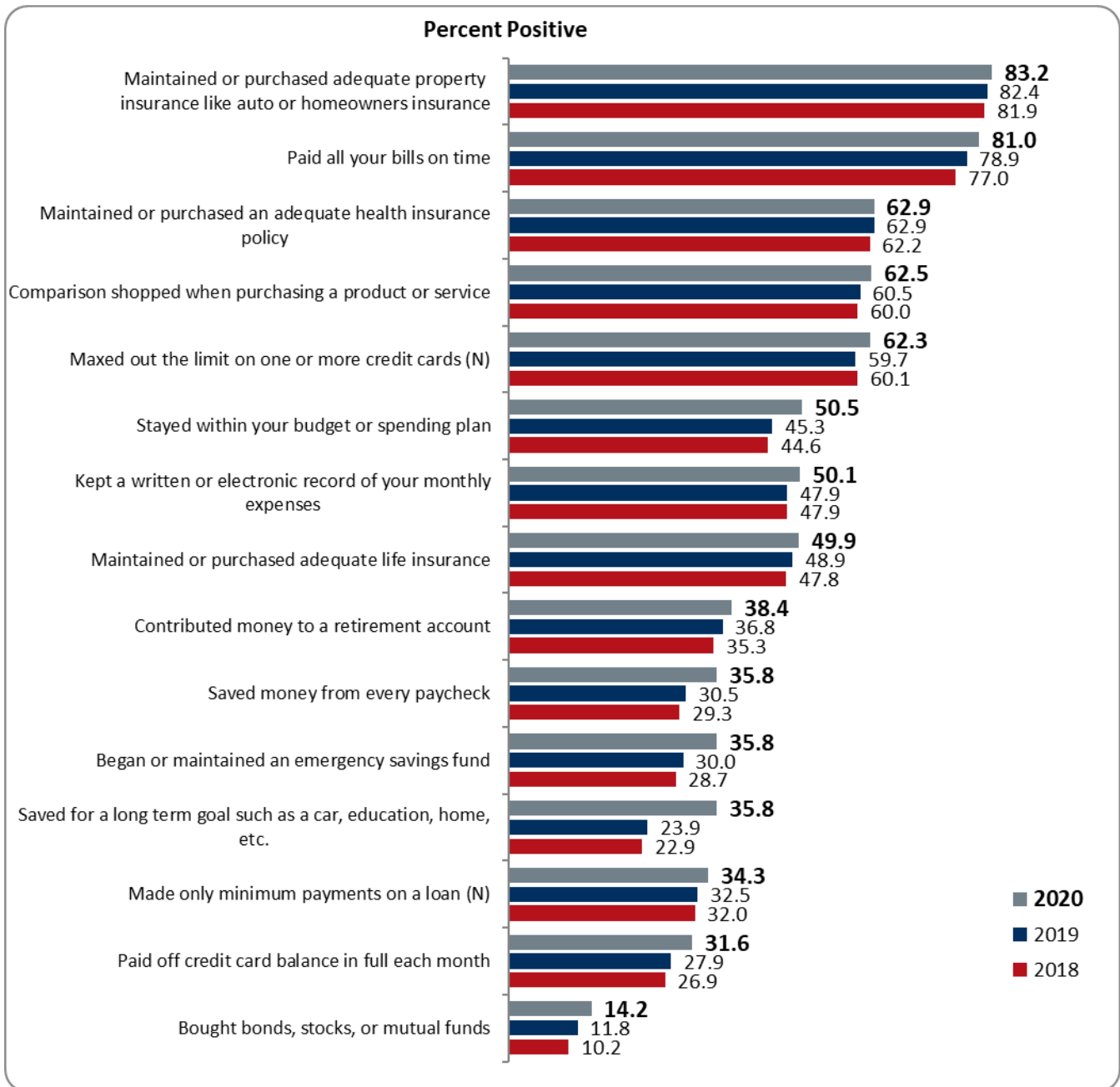
The overall score is quite a bit lower than that found in a study of a representative U.S. population, which found an overall score of 3.58 (Dew & Xiao, 2013).

- Just over a quarter (28.3%) of warriors never pay off their monthly credit card balance in full (an improvement from 32.5% in 2019)
- About half (53.5%) of warriors always paid their bills on time in the past six months

Additionally, Figure 49 presents the percent positive of responses to each of the 15 items — that is, the percentage responding *Always* or *Often* to positively worded items or *Seldom* or *Never* to negatively worded items (N). These findings are very similar to those in 2019, with a few exceptions — warriors more frequently stayed within their budget or spending plan, saved money from every paycheck, began or maintained an emergency savings fund, and saved for a long-term goal.

Warriors were asked how often they engaged in beginning or maintaining an emergency savings fund in the past six months. Among those who answered *Seldom*, *Sometimes*, *Often*, or *Always* (75.7%), about a quarter (26.7%; 30.8% in 2019) said that fund would last them less than one month, and 29.4 percent said it would last them one to two months.

Figure 49. Percent Positive Responses to Financial Management Behaviors



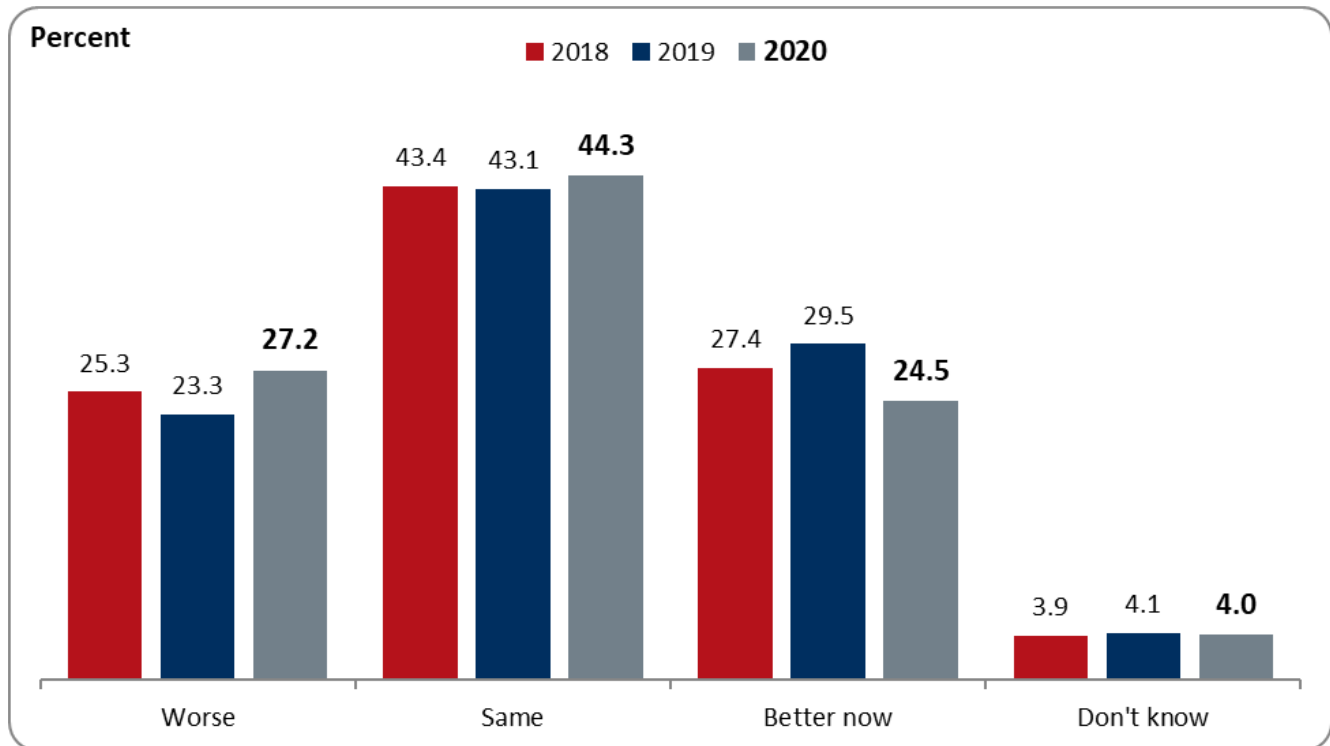
NOTES: An (N) after the statement indicates that the item is negatively worded. Percent positive for negatively worded statements is the percentage who answered *Never* or *Seldom*.

OVERALL ASSESSMENT OF FINANCIAL SITUATION

Warriors were asked whether they would say their financial status (and that of family living with them) is better now, the same, or worse than a year ago (Figure 50):

- Financial status is better now – 24.5%
- Financial status is worse – 27.2%

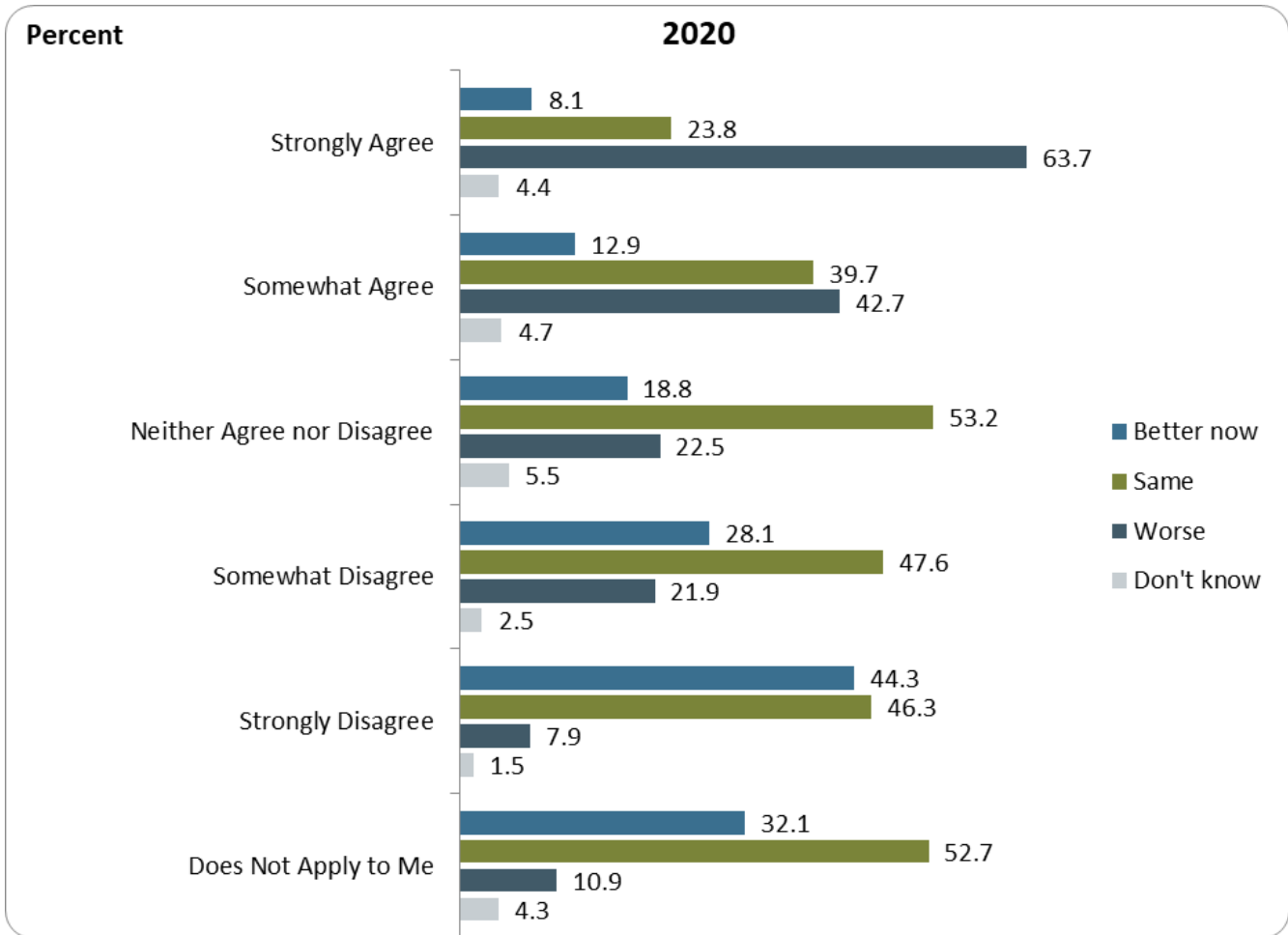
Figure 50. Financial Situation: Better Now, the Same, or Worse Than a Year Ago?



Before this year, the financial situation among warriors seemed to be improving based on this assessment. This year's shift in financial status is likely because of the pandemic. About a third of warriors either somewhat or strongly agreed with the statement "I have or expect to run out of money for myself or my family's necessities because of COVID-19."

The 2020 survey asks warriors to rate their level of agreement with the following statement regarding their experience with the pandemic: "I have or expect to run out of money for myself or my family's necessities." Those who agreed with the statement (either *strongly* or *somewhat agree*, 33.5%) more often reported that their financial status is worse than last year than those who disagreed (either *somewhat* or *strongly disagree*, 26.3%). This is explained in more detail in Figure 51 on the following page.

Figure 51. Overall Assessment of Financial Status by Level of Agreement with the Statement “I have or expect to run out of money for myself or my family’s necessities.”

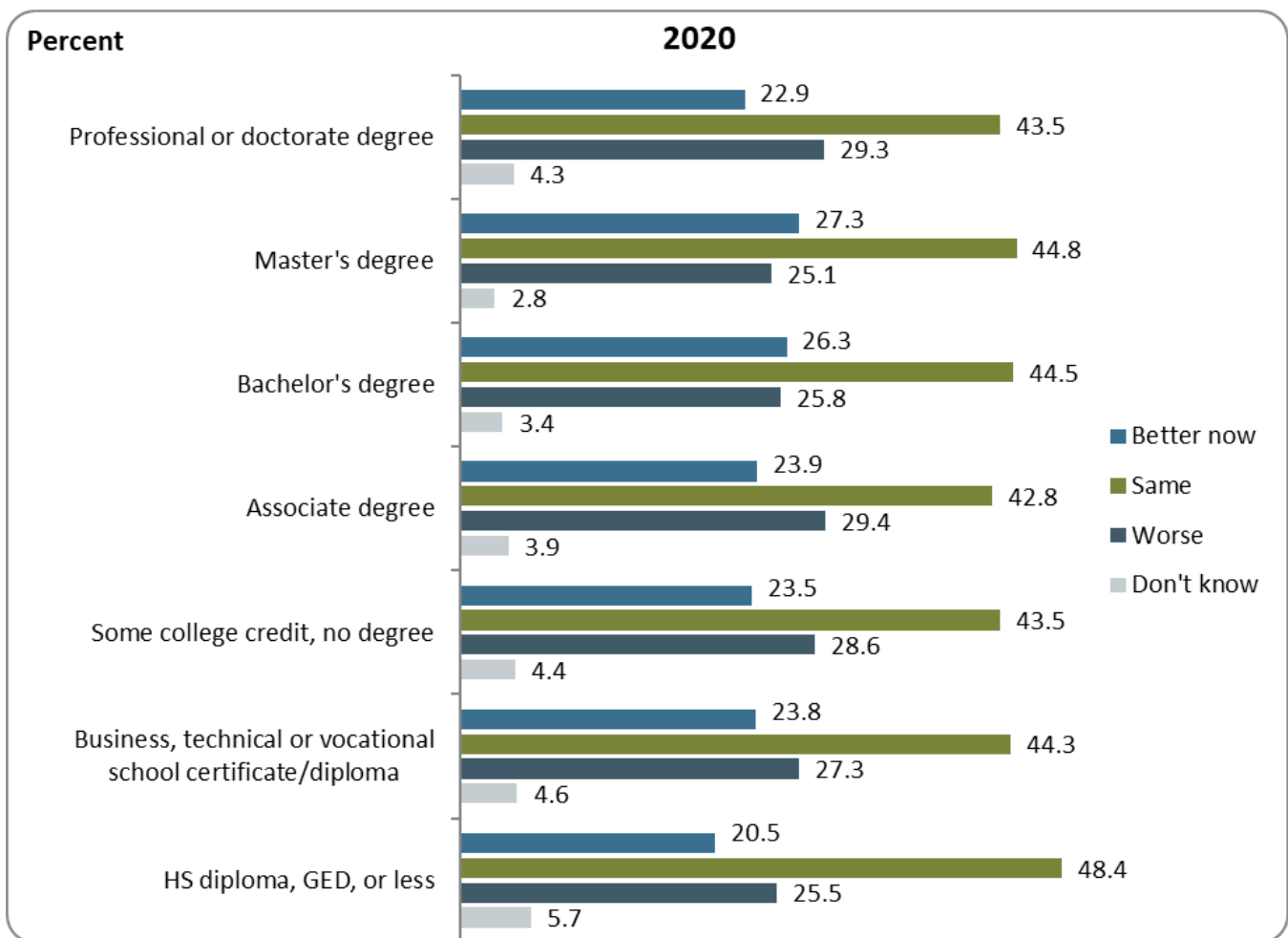


OVERALL ASSESSMENT OF FINANCIAL STATUS BY HIGHEST DEGREE OF EDUCATIONAL ATTAINMENT.

Financial status has a known correlation with education. Figure 52 shows the results for current financial status relative to a year ago by highest degree or educational attainment. The flip in financial status across all education levels shows that the impact of the pandemic affects people across the board, regardless of socioeconomic status. Major findings include:

- In all education categories, at least a quarter of warriors said their financial status is worse off than a year ago (ranges from 25.5% to 29.4%, a departure from the improving trend in financial status from previous years).
- Less than 28 percent of warriors in any education category assessed their financial status as better than a year ago – in 2019, at least 28 percent in each education category assessed their financial status as better than the prior year.

Figure 52. Overall Assessment of Financial Status by Highest Degree/Level of Education



OVERALL ASSESSMENT OF FINANCIAL STATUS BY LABOR FORCE STATUS. When the overall financial assessment data were analyzed by labor force status, full-time employed warriors and those not in the labor force have somewhat similar results as 2019. However, part-time employed and unemployed warriors had much more significant changes (Figure 53). Changes among part-time employed warriors have been typical over the years, likely because they represent a relatively small proportion of warriors (only 7.5% in 2020). The change among unemployed warriors is likely a result of the high unemployment rate this year due to the COVID-19 pandemic. That is, many warriors who were previously employed were unemployed at the time of this survey and thus experienced a negative impact on financial status. More detailed findings include:

- Among unemployed warriors, 56.8 percent feel they are faring worse financially than a year ago (49.5% in 2019).
- In all other labor status categories (full time, part time, and not in the labor force), nearly half of warriors (41.3% to 47.7%) feel their financial status is the same as a year ago.

Figure 53. Overall Assessment of Financial Status by Labor Force Status

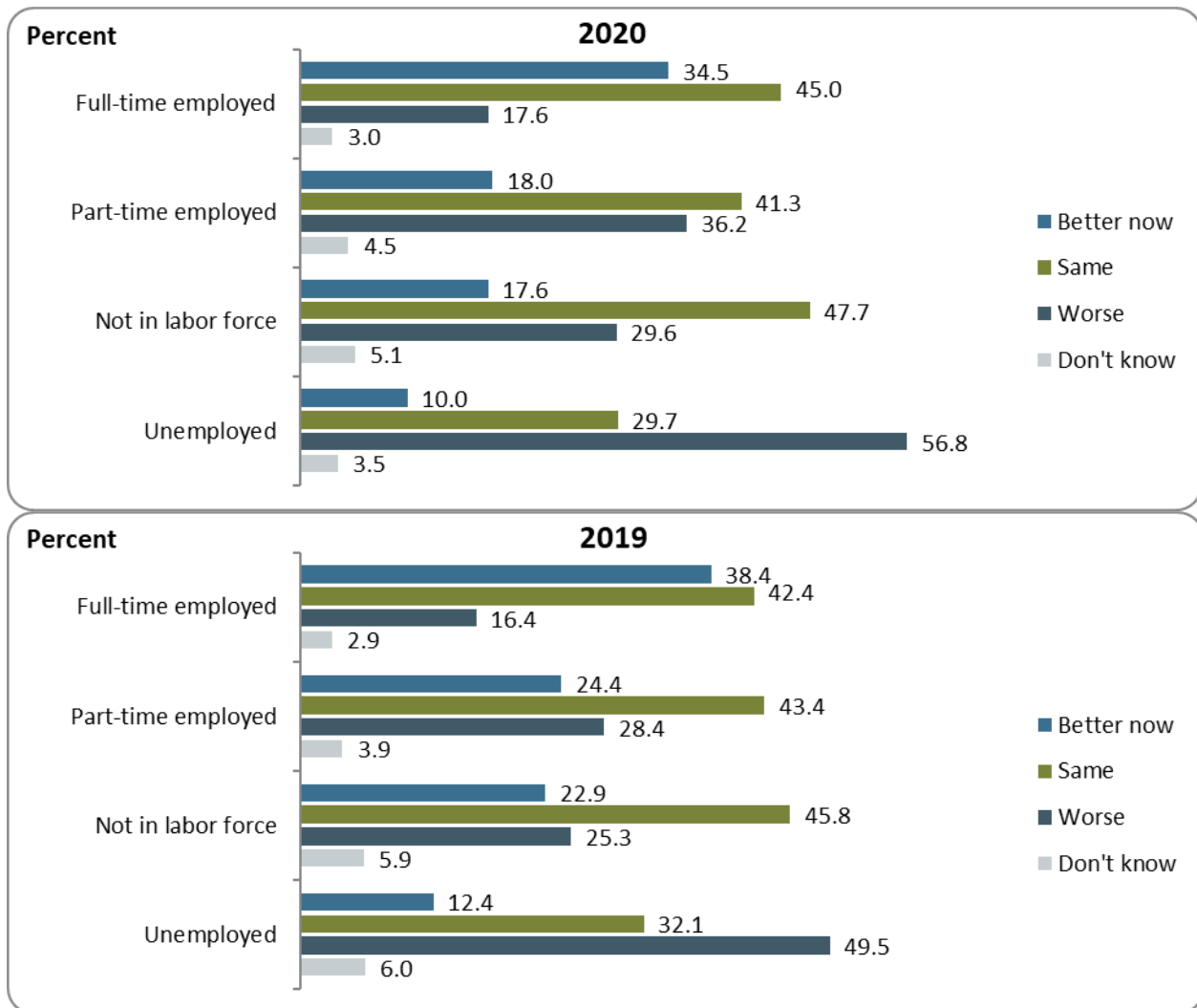
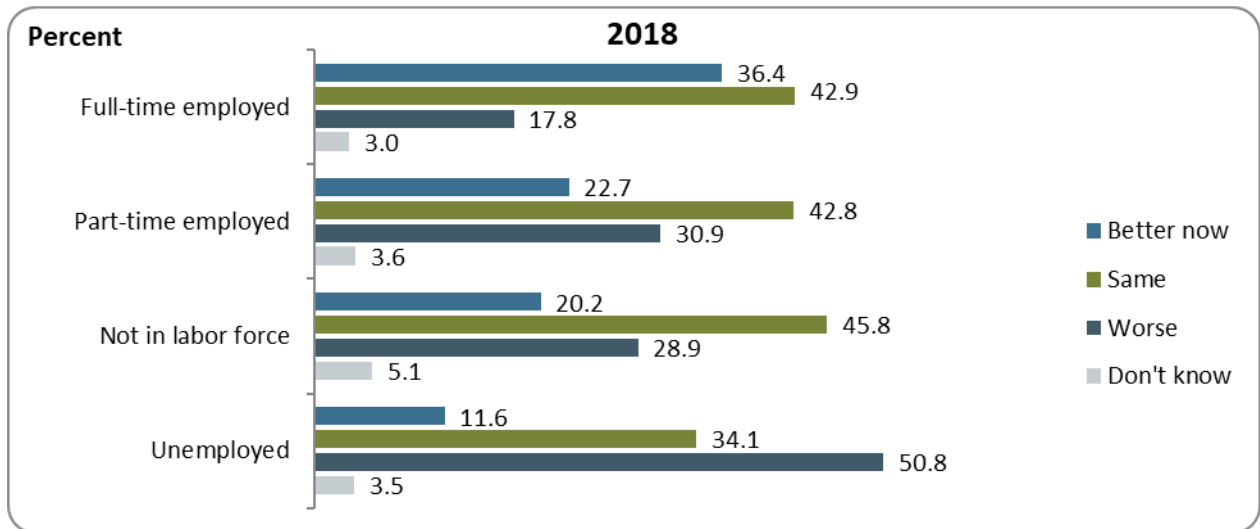


Figure 53. Overall Assessment of Financial Status by Labor Force Status (continued)



CONCLUSIONS

Many of the responses from warriors in the 2020, 2019, and 2018 surveys remain consistent. The percentage of warriors on active duty remains at 6 percent (6.0% in 2020 and 6.5% in 2019). Almost half of warriors have deployed three or more times during their military career, and most of these deployed warriors (91.6%) did so at least once to a combat area since 9/11. These military experiences and combat exposures have resulted in over 80 percent (82.6%) of warriors experiencing two or more severe mental injuries during their service and 87.0% have sustained two or more severe physical injuries.

TOXIC EXPOSURE. Warriors were asked about toxic exposure to chemical warfare agents, ionizing radiation, burn pits, or other potentially toxic substances during their military service. Most warriors (88.7%) indicated they were *definitely* or *probably exposed* to environmental hazards. The biggest exposures were burn pits (85.7%) and sand, dust and particles (75.5%). Of those exposed to environmental hazards, only 16 percent sought treatment at the VA for exposure related issues, though this is up from 9.3 percent in 2019. The most common symptoms/illnesses associated with these exposures were muscle and joint pain (87.5%) and sleep disturbances (85.6%). Fewer warriors exposed are not doing anything to receive treatment at the VA for exposure related issues (40.9% in 2020, down from 47.1% in 2019), indicating a positive trend on health seeking behavior.

MILITARY SEXUAL HARASSMENT AND ASSAULT. Military sexual assault continues to be an issue especially for female service members and veterans. More than 10 percent (10.9% in 2020, 10.4% in 2019 and 8.4% in 2018) of all warriors reported military sexual trauma (MST). MST is experienced by almost half of the female warriors (43.7% in 2020 compared to 44.4% in 2019). New questions were added to the survey this year about sexual assault or sexual harassment involving military personnel, DoD/Service civilian employees and/or contractors. Overall, 10.4 percent indicated having experienced sexual assault and 15.1 percent say they experienced sexual harassment. The percentage reporting sexual harassment and sexual assault is substantially different between genders. Almost 45 percent of female warriors (44.1% in 2020) experienced sexual assault and 60.9 percent of females experienced sexual harassment. Conversely, 2.2 percent of male warriors experienced sexual assault and 3.9 percent experienced sexual harassment.

GENERAL HEALTH AND WELL-BEING. More than half of warriors (51.8%) rated their health as *good, very good, or excellent*, compared to 48 percent in 2018. Warriors were asked how they felt in the past 4 weeks. A little under a third (29.0%) reported they felt calm and peaceful *all of the time, most of the time, or a good bit of the time compared to 28.4 percent in 2019*. Less than half (43.2%) indicated they felt downhearted and blue.

The Veterans Rand 12 Item Health Survey (VR-12) has been used to assess warriors' overall perspective of their health. Findings from this instrument are consistent with scores from the previous year. The Physical Component Scale (PCS) score — a composite measure of the impact of physical health on quality of life — for WWP warriors was 37.9 in 2020, which is similar to past years. This is considerably lower than the U.S. population average of 50, but similar to other veterans with one or more medical comorbidities. Only 14 percent (14.2%) of all warriors have physical health-related quality of life that is at least as good as the norm (50). The Mental Component Scale (MCS) score — a composite measure of the impact of mental and

emotional health on quality of life — for WWP warriors was 35.8. This is also notably lower than the U.S. population average of 50, but similar to veterans with more than two mental comorbidities. Only 15 percent (14.9%) of warriors have mental health-related quality of life that is at least as good as the norm (50).

VA HEALTH CARE. About 72 percent of all warriors have health care coverage through VA. Almost all warriors (95.2%) are receiving VA compensation benefits when excluding active-duty service members. The percentage of warriors with a 100 percent VA service-connected disability rating has been steadily increasing over the years (44.9% in 2020 compared to 36.5% in 2018), so warriors may be more likely to rely upon the VA for their health care. Over 70 percent (71.8% in 2020 and 65.2% in 2018) have a VA disability rating of 80 percent or higher. Although, warriors have indicated some barriers to seeking care at the VA. Some of the top reasons warriors don't use the VA as their primary health care provider include thinking VA health care is not as good as that available elsewhere (42.2%), bad prior experiences at the VA (40.8%), and difficulty accessing the VA due to parking and/or appointment availability (39.3%).

EDUCATION. The warrior population has continued to obtain degrees in higher education. The percentage of warriors with a bachelor's, master's, or professional/doctorate degree is about 42 percent compared to about 36 percent in 2018. At the same time, the number of those enrolled in school has decreased over the years (23.2% in 2018 down to 17.9% in 2020). About 71 percent of warriors enrolled in school in 2020 are pursuing degree bachelor's degree or higher. The decrease in pursuit of education is also explained by the increasing levels of education warriors have obtained. The percentage of warriors who have unpaid student loans has remained around 23 percent; however the amount owed has increased quite a bit over the years. The percentage of warriors with debts over \$30,000 or more has been increasing from 32.5 percent in 2018 to 36.8 percent in 2020. Student loan assistance could be hugely beneficial to warriors who are struggling with this kind of debt and could improve overall financial status for these warriors.

IMPACT OF THE COVID-19 PANDEMIC. The 2020 Annual Warrior Survey was fielded in the middle of the COVID-19 pandemic, when lives of Americans as a whole changed dramatically. These changes are reflected in the survey data.

Unemployment is at an all-time high this year, with an unemployment rate of 16.2 percent among non-active-duty warriors (11.5% in 2019). This is not surprising given that the national unemployment rate has reached unprecedented levels in 2020. A large percentage of warriors (41.3%) expressed that they have experienced challenges related to their employment status due to COVID-19. Unemployed warriors agreed with that statement at a much higher rate than employed warriors.

The Annual Warrior Survey has historically included a question asking whether warriors would say their financial status is *better*, the *same*, or *worse now* compared to the previous year. Up until this year, the percentage of warriors selecting *better now* progressively increased. This year, however, that percentage dropped to 24.5 percent, from 29.5 percent in 2019. In fact, 33.7 percent of warriors agreed with the statement "I have or expect to run out of money for myself or for my family's necessities" because of the pandemic. When looking at warriors' financial status rating by their level of agreement with that statement, the results are staggering. Among those who strongly agree with the statement (15.8% of all warriors), 63.7 percent feel they are worse off financially than a year ago. Among those who strongly disagree with the statement (18.4% of

all warriors), and therefore presumably not concerned about money, only 7.9 percent felt their financial status is worse than last year.

Over half of warriors report feeling more disconnected from family, friends, or community (60.5%) because of the pandemic. The feeling of lack of connectedness is also reflected in the UCLA 3-Item Loneliness Scale, which shows that 68 percent of warriors are lonely.

About half of warriors felt their mental health is worse since socially distancing has become a standard (51.9%).

Many warriors also stated that their mental and physical health care appointments were postponed or canceled because of the pandemic. This explains why the percentage of warriors with no health care visits in the past 3 months nearly doubled (from 24.4% in 2019 to 42.3% in 2020), and the percentage of warriors with any mental health care visits in the past three months decreased by almost 10 percentage points (52.0% in 2019 and 43.2% in 2020).

Fortunately, most warriors have a support system in place as they deal with these challenges. More than three-quarters (79.9%) of warriors said there are people in their lives whom they can depend on to help them when they really need it. Most warriors also indicated that, specific to COVID-related challenges, they know where to turn to for help if they need it (68.8%). This support system includes the many WWP programs and services offered to warriors and their family members, including connection-focused events that have been offered virtually since March. These events are extremely important to warriors because they provide an opportunity to interact with other veterans who share similar experiences and circumstances. In fact, warriors list interaction with other veterans as one of their top three resources for addressing mental health concerns — along with VA health care and prescription medications. These interactions, along with the many other benefits provided by WWP programs and services, are vital to the rehabilitation and recovery of warriors as they seek to improve their current health, employment, and financial status while also persevering through these unique times.

REFERENCES

- Bowman, S.A., Clemens, J.C., Martin, C.L., Anand, J., Steinfeldt, L.C., and Moshfegh, A.J. (2017). Added Sugars Intake of Americans: What We Eat in America, NHANES 2013-2014. Food Surveys Research Group. Dietary Data Brief No. 18. May 2017. Retrieved from: https://www.ars.usda.gov/ARSUserFiles/80400530/pdf/DBrief/18_Added_Sugars_Intake_of_Americans_2013-2014.pdf.
- Bradley, K.A., DeBenedetti, A.F., Volk, R.J., Williams, E.C., Frank, D., and Kivlahan, D.R. (2007). AUDIT-C as a Brief Screen for Alcohol Misuse in Primary Care. *Alcoholism: Clinical and Experimental Research*, 31(7), 1208–1217.
- Breland, J.Y., Phibbs, C.S., Hoggatt, K.J., et al. (2017). The Obesity Epidemic in the Veterans Health Administration: Prevalence Among Key Populations of Women and Men Veterans. *Journal of General Internal Medicine*, 32:11–17. Retrieved from: <https://doi.org/10.1007/s11606-016-3962-1>.
- Buysse, D.J., Hall, M.L., Strollo, P.J., et al. (2010). Relationships between the Pittsburgh Sleep Quality Index (PSQI), Epworth Sleepiness Scale (ESS), and clinical/polysomnographic measures in a community sample [published correction appears in J Clin Sleep Med. 2010 Feb 15;6(1):table of contents]. *J Clin Sleep Med*, 4(6), 563–571.
- Campbell-Sills, L., Forde, D.R., and Stein, M.B. (2009). Demographic and childhood environmental predictors of resilience in a community sample. *Journal of Psychiatric Research*, 43(12), 1007–12.
- Dawson, D.A., Grant, B.F., Stinson, F.S., and Zhou, Y. (2005). Effectiveness of the Derived Alcohol Use Disorders Identification Test (AUDIT-C) in screening for alcohol use disorders and risk drinking in the U.S. general population. *Alcoholism: Clinical and Experimental Research*, 29(5), 844–854.
- Dew, J., and Xiao, J.J. (2011). The Financial Management Behavior Scale: Development and Validation. *Journal of Financial Counseling and Planning*, 22(1), 43–59.
- Dew, J., and Xiao, J.J. (2013). Financial Declines, Financial Behaviors, and Relationship Satisfaction during the Recession. *Journal of Financial Therapy*, 4 (1), 1.
- Fryar, C.D., Kruszon-Moran D., Gu Q., and Ogden C.L. (2018). Mean body weight, height, waist circumference, and body mass index among adults: United States, 1999–2000 through 2015–2016. National Health Statistics Reports; no 122. Hyattsville, MD: National Center for Health Statistics. 2018. Retrieved from: <https://www.cdc.gov/nchs/data/nhsr/nhsr122-508.pdf>.
- Green, K.T., Beckman, J.C., Youssef, N., and Elbogen, E.B. (2014). Alcohol Misuse and Psychological Resilience among U.S. Iraq and Afghanistan Era Veteran Military Personnel. *Addictive Behaviors*, 39(2), 406–413. Retrieved from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3936318/pdf/nihms530060.pdf>.
- Kazis, L.E., Miller, D.R., Skinner, K.M., Lee, A., Ren, X.S., Clark, J.A., Rogers, W.H., Spiro, A., III, Selim A., Linzer, M., Payne, S.M., Mansell, D., and Graeme Fincke, B.G. (2006). Applications of Methodologies of the Veterans Health Study in the VA Healthcare System: Conclusions and Summary. *The Journal of Ambulatory Care Management*, 29 no. 2, 182–8.
- Littman, A.J., Jacobson, I.G., Boyko, E.J., Powell, T.M., and Smith, T.C. (2013). Weight change following US military service. *International Journal of Obesity* 37, 244–253.
- Meadows, S.O., Engel C.C., Collins, R.L., Beckman, R.L., Cefalu, M., Hawes-Dawson, J., Doyle, M., Kress, A.M., Sontag-Padilla, L., Ramchand, R., and Williams, K.M. (2015). *Department of Defense Health Related Behaviors Survey (HRBS)*. Retrieved from: https://www.rand.org/pubs/research_reports/RR1695.html.

- Melvin, K.C., Gorss, D., Hayat, M.J., Jennings, B.M., and Campbell, J.C. (2012). Couple Functioning and Post-Traumatic Stress Syndromes in U.S. Army Couples: The Role of Resilience. *Research in Nursing and Health*. Retrieved from: https://www.researchgate.net/profile/Kristal_Melvin2/publication/51871367_Couple_functioning_and_post-traumatic_stress_symptoms_in_US_Army_couples_The_role_of_resilience/links/55819eed08ae1b14a0a0fd42.pdf.
- ODPHP (2016). 2015–2020 Dietary Guidelines for Americans — Cut Down on Added Sugars. Retrieved from: https://health.gov/sites/default/files/2019-10/DGA_Cut-Down-On-Added-Sugars.pdf.
- Pew Research Center (2019). 5 facts about student loans — Pew Research Center analysis of Federal Reserve Board’s 2018 Survey of Housing Economics and Decisionmaking. Retrieved from: <https://www.pewresearch.org/fact-tank/2019/08/13/facts-about-student-loans/>.
- Pickett, T., Rothman, D., Crawford, E., and Brancu, M. (2015). Mental health among military personnel and veterans. *North Carolina Medical Journal* 76(5), 299–306. Retrieved from: <http://www.ncmedicaljournal.com/content/76/5/299.long>.
- Polley, M., Frank, D., and Smith, M. (2013). *National Veterans Sleep Survey: Results and Findings*, John Hopkins School of Medicine, Center for Behavior Health, VetAdvisor, LLC. Retrieved from: http://myvetadvisor.com/wp-content/uploads/2013/07/Vetadvisor_sleepreport-1.pdf.
- Nichter, B., Haller, M., Norman, S., and Petrzak, R. H. (2020). Risk and protective factors associated with comorbid PTSD and depression in U.S. military veterans: Results from the National Health and Resilience in Veterans Study. *Journal of Psychiatric Research* 121, 56–61. Retrieved from: <https://pubmed.ncbi.nlm.nih.gov/31765837/>.
- Substance Abuse and Mental Health Services Administration (2017). *Results From the 2016 National Survey on Drug Use and Health-Detailed Tables*. Rockville, MD. Retrieved from: <https://www.samhsa.gov/data/sites/default/files/NSDUH-DetTabs-2016/NSDUH-DetTabs-2016.pdf>.
- Schell, T., and Marshall, G. (2008). Survey of individuals previously deployed for OEF/OIF. In T. Tanielian and L. Jaycox (Eds.), *Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery* (pp. 87–115). Santa Monica, CA: RAND Corporation.
- Smith, T.C., Zamorski, M., Smith, B., Riddle, J.R., LeardMann, C.A., Wells, T.S., Engel, C.C., Hoge, C.W., Adkins, J., Blaze, D., and the Millennium Cohort Study Team (2007). *The physical and mental health of a large military cohort: baseline functional health status of the Millennium Cohort*. BMC Public Health, 7, 340. Published online November 2007. Doi 10.1186/1471-2458-7-340. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2212642/>.
- U.S. Department of Commerce (2020). Quarterly Residential Vacancies and Homeownership, First Quarter 2019 (Release Number: CB20-58, April 28, 2020). Retrieved from: <https://www.census.gov/housing/hvs/files/currenthvspress.pdf>.
- U.S. Bureau of Labor Statistics (2020). *Employment situation of veterans — 2019* (News Release USDL-20-0452, March 19, 2020). Includes Tables 1–10. Retrieved from: <http://www.bls.gov/news.release/pdf/vet.pdf>.
- U.S. Bureau of Labor Statistics (2020). *The Employment Situation — May 2020* (News Release USDL-20-1140,). Retrieved from: <http://www.bls.gov/news.release/pdf/empsit.pdf>.
- Wilson, N.J. and Kazis, L.E. (1997). Health Status of Veterans: Physical and Mental Component Summary Scores (SF-36V), 1996 National Survey of Ambulatory Care Patients Executive Report (Washington: Department of Veterans Affairs).

Appendix A

Survey Methods and Administration Details

APPENDIX A

SURVEY METHODS AND ADMINISTRATION DETAILS

SURVEY POPULATION

WWP delivered a database containing warrior names, email addresses, telephone numbers, and other administrative information to Westat in March 2020. Westat removed duplicate records, test records, names of warriors who requested that they not receive email from WWP, and bad email addresses. Caregivers were also excluded. The resulting survey population included 121,981 wounded warriors registered with the Wounded Warrior Project.

QUESTIONNAIRE

The survey was designed to address the following broad topics:

- Overall Warrior Background Information
- COVID-19 Pandemic Impact
- Physical and Mental Well-Being
- Economic Empowerment

The final version of the 2020 survey included 155 closed-ended questions, many of them multi-item questions. Not all questions were administered to all warriors as the survey used automated skip patterns to avoid asking warriors questions that did not apply to them as determined by answers to previous questions.

The web instrument was pretested across Windows platforms; multiple browsers (Internet Explorer/Edge, Firefox, Safari, and Chrome); iOS and Android mobile devices; and popular screen resolution settings.

DATA COLLECTION

SURVEY MODE. The survey was administered electronically via the web.

FIELD PERIOD. The 7-week data collection period began on Tuesday, May 5, 2020, and continued through Friday, June 19, 2020.

SURVEY COMMUNICATIONS. Warriors were emailed a notification of the upcoming survey, a survey invitation, and nine email reminder messages during the data collection period (Table A1). This year, Wounded Warrior Project sent almost all the survey email communications. Emails were tailored based on survey status such as starting the survey but not finishing, not completing the survey in the prior year or being a new warrior. Slight differences in the subject line and wording were made between the emails. The overall contents of email messages were the same.

Table A1. List of Survey Communications Sent to WWP Warriors

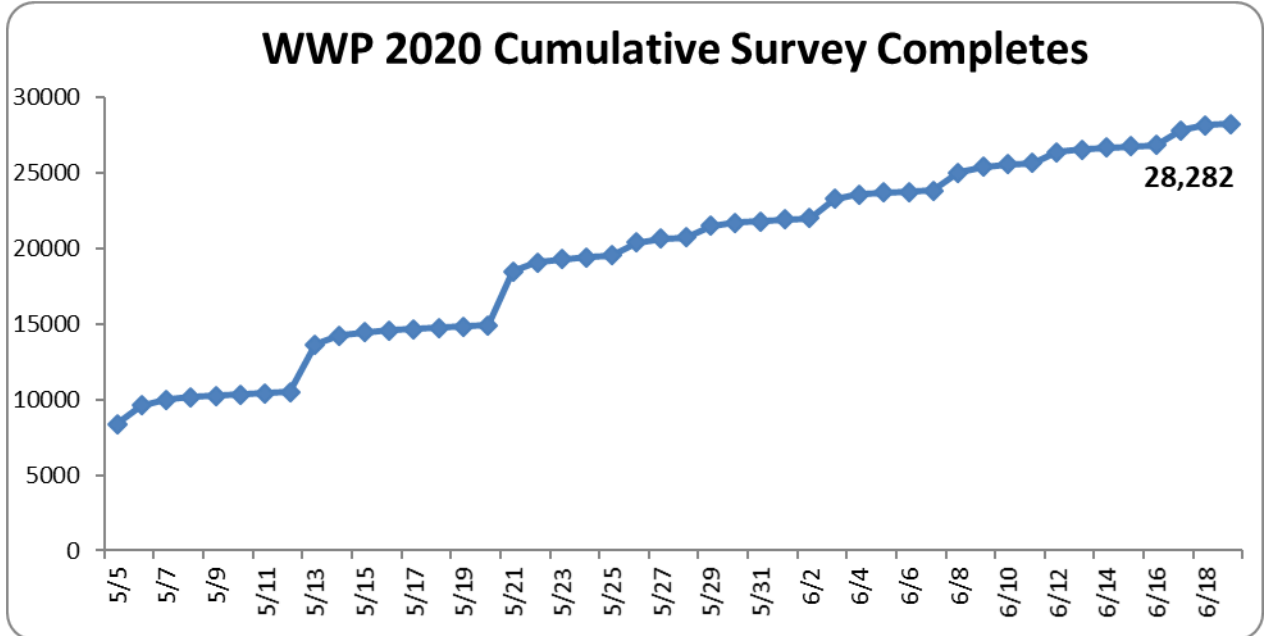
Email communication	Date sent
Survey prenotification	April 29, 2020
Survey invitation	May 5, 2020
Thank you/reminder #1	May 13, 2020
Thank you/reminder #2	May 21, 2020
Thank you/reminder #3	May 26, 2020
Thank you/reminder #4	May 29, 2020
Thank you/reminder #5	June 3, 2020
Thank you/reminder #6	June 4, 2020
Thank you/reminder #7	June 8, 2020
Thank you/reminder #8	June 12, 2020
Thank you/reminder #9	June 17, 2020

The survey invitation email contained a link to the survey website as well as a unique user ID for accessing the survey. The email explained the purpose of the survey, encouraged participation, stated that caregivers could assist with completing the survey, and provided contact information for the WWP Resource Center and the Westat WWP Survey Support Center. The email also informed warriors that when they submitted their completed surveys, they could provide a mailing address to receive a limited edition WWP 3-in-1 cable charger or phone wallet. Every email invitation and reminder included a link to unsubscribe from future communications about the survey. During the field period, Westat and WWP emailed nine thank you/reminders about the survey to all nonrespondents. WWP sent all the survey communications except the June 4, 2020 email.

A survey ID lookup site was utilized this year to assist warriors with accessing the web survey. Social media posts encouraged members to check eligibility and retrieve their survey ID by entering their email address. It was designed in a similar way as forgot my password retrieval functions. The web survey was accessed by 92 warriors who retrieved their ID and started the web survey.

Figure A1 includes information on when completed surveys were submitted by respondents. The data indicate the effect of the various thank you/reminders on the response rate.

Figure A1. Cumulative 2020 WWP Survey Completes Throughout Data Collection



SURVEY HELP CENTER

During the field period, Westat maintained a toll-free telephone number and a project email box that WWP warriors and their caregivers could use to request technical assistance for accessing the survey or to ask general questions about the survey.

EMAILS. Help Center staff received more than 150 emails. About one third of the emails were from warriors requesting their unique survey ID to log in to the survey. A handful of warriors wrote in stating they did not want to participate in the survey, and some warriors had issues accessing the web survey. The help center staff also forwarded a small number of requests not related to the web survey to WWP.

In response to other emails, Help Center staff classified seven warriors as refusals who they removed from the survey mailing list, and updated five email addresses and one mailing address.

TOLL-FREE HOTLINE. The hotline number rang directly at the Survey Help Center and was answered by a staff member during weekday business hours (9:00 a.m. to 5:00 p.m., EDT). Voicemail was available to anyone calling after business hours or on weekends, and messages were answered within one business day.

During the field period, five phone calls or voice messages were received. Topics of the calls included technical issues with accessing the survey, questions about WWP resources, length of the survey, and refusals to take the survey. The Help Center

assisted all callers and, when appropriate, provided them with contact information for the WWP Resource Center.

DISTRESSED COMMENTS. Westat shared with WWP responses to a closed-ended question about death and self-harm. The question asked: “In the past two weeks, how often have you been bothered by any of the following problems...thoughts that you would be better off dead or of hurting yourself in some way.” WWP was alerted daily to the identity of warriors who responded “Several days” “More than half the days” and “Nearly every day” to this question. An email was sent to these warriors stating WWP supports them and providing a phone number to call if they wished to speak with a Resource Center representative. The email also contained links to resources like the Veteran Crisis Line and WWP Mental Health & Wellness programs. A call attempt was also made by WWP to warriors if they selected the severe response of *More than half the days* or *Nearly every day* to this question.

CASE DISPOSITION

At the end of data collection, Westat cleaned the data and assigned final disposition codes to each warrior in the sample, indicating eligibility or ineligibility for the survey, completes, partial completes, refusals, and nonresponse (Table A2). The final data set does not include any data from surveys designated as partial completes.

RESPONSE RATE

The response rate for the 2020 survey was 23.2 percent, compared with 32.7 percent in 2019, and 33.7 percent in 2018. Data collection protocols were largely unchanged from the prior year. Without a nonresponse follow-up study, there is no data to suggest why the response rate has declined nearly 10 percent this year. It may be that the pandemic and associated economic difficulties have turned warriors’ attention elsewhere.

The 2020 rate was calculated as follows:

Response Rate = [Number of completes / (Number of eligible respondents + number of eligible nonrespondents)] * 100.

$$= [28,282 / (28,282 + 6,403 + 7 + 87,288)] * 100$$

$$= [28,282 / 121,980] * 100$$

$$= 23.2 \text{ percent}$$

Table A2. Final Disposition Codes

Number	Disposition value	Disposition code	Definition of disposition code
Eligible respondents			
28,282	C	Complete	Completed web survey — Answered at least 11 of 21 core demographic questions as well as 23 of 50 core non-demographic items. Core questions were those that all respondents had a chance to answer (i.e., they were not prevented from answering them because of programmed skips).
Eligible nonrespondents			
6,403	P	Partial Complete	Partially completed web survey — Did not answer at least 11 of the core demographic questions and 23 of core non-demographic questions.
7	R	Refusal	Emailed or called and said “Do not email me again” and did not submit a survey.
87,288	N	No response	No survey submitted or started.
Ineligible sample members			
1	I	Ineligible	Was not eligible — Spouse/caregiver was accidentally included in sample.

WEIGHTING THE DATA. When everyone in the population is asked to participate in a survey, unweighted estimates will represent the entire population only if everyone responds or if there is no relationship between the likelihood of a response and the values of the survey data. If there is a relationship between the likelihood of responding to the survey and the answers given, the unweighted estimates may not represent the entire population. For example, if the response rate for WWP warriors who are currently on active duty is much lower than that for WWP warriors who have separated or have retired from the military, then unweighted estimates will underrepresent individuals on active duty and overrepresent individuals who are not on active duty. Moreover, survey variables that have a relationship with active-duty status — for example, income or employment status — can be similarly affected. In this case, weighted estimates in which the weight for respondents on active duty is greater than the weight for respondents not on active duty would produce overall estimates that are more representative of the entire population.

When calculating weights, statisticians need to have information about both respondents and nonrespondents to determine if the characteristics of respondents are different from those of nonrespondents. This information is used to divide the population into subpopulations — called nonresponse adjustment cells — and the response rate is then calculated in each subpopulation. The information used to create nonresponse adjustment cells should have the following characteristics:

- Response rates should be different in different nonresponse adjustment cells. (If there are only small differences in response rates among the created nonresponse adjustment cells, weighted estimates will not be very different from unweighted estimates.)

- Variables used to create nonresponse adjustment cells should have a relationship with one or more survey variables. (For survey variables that have no relationship with variables used to define the nonresponse adjustment cells, the differences between weighted and unweighted estimates will be very small.)

Because the nonresponse adjustment cells must be defined with information available for both respondents and nonrespondents, we examined the response rates at the different levels for all the warriors who were asked to participate in the 2020 survey. For respondents, we also examined the relationship between these variables and the corresponding survey variables.

For the 2020 survey, we decided to create nonresponse adjustment cells similar to the way we created the nonresponse adjustment cells for the 2013 through 2018 surveys — that is, we used the following three variables to create nonresponse adjustment cells:

1. FRAME_STATUS (active-duty status). Three levels: active-duty, not on active duty, and missing.
2. FRAME_REGION (WWP region). Five levels: Midwest, Northeast, South, West, and missing.
3. FRAME_AGE_CAT (age category). Five categories: 18–24, 25–30, 31–35, greater than 35, and missing age.

Table A3 contains response rates disaggregated by level for each of these variables.

Table A3. 2020 Response Rates by Variable and Level Using Information Available for Both Respondents and Nonrespondents

Variable	Level	Individuals in population	Respondents	Response rate (%)
Frame status	Active duty	18,511	3,398	18.4
	Not on active duty	95,612	23,612	24.7
	Missing	7,857	1,272	16.2
Frame region	Midwest	13,714	3,582	26.1
	Northeast	10,646	2,628	24.7
	South	62,811	14,494	23.1
	West	26,943	6,364	23.6
	Missing	7,867	1,214	15.4
Frame age category	18-24	1,827	143	7.8
	25-30	12,125	1,530	12.6
	31-35	27,240	5,154	18.9
	> 35	77,659	20,975	27.0
	Missing	3,130	480	15.3

For the 2020 survey, we calculated a set of weights to be used for the analysis of completed surveys submitted by the respondents to the 2020 survey. The resulting weighted estimates represent the 2020 universe of warriors asked to complete the survey. These types of weights are called cross-sectional weights.

Previously, the same process was used in the year 2013 through 2018. For the year 2020, 100 replicate weights were added during the construction of the base weights. This serves two purposes. First, we can capture the variability due to the nonresponse

adjustment procedure that was previously missing. Second, having replicate weights will allow analysis of the WWP survey data using Westat’s WesDaX online data analysis and reporting system, which can be used by WWP staff to easily create additional analyses of the survey data.

We initially created $3 \times 5 \times 4 = 60$ nonresponse adjustment cells. Adjustment cells containing fewer than 30 respondents were collapsed with cells having similar response rates. The final number of nonresponse adjustment cells was 41.

The first step in calculating weights is to determine base weights, which are the reciprocals of the sampling probabilities. Because all the individuals in the population were invited to participate (that is, each individual had the same probability of being sampled), all of the base weights were equal to 1.0. The base weights were then adjusted for nonresponse. For a nonrespondent, the adjusted weight is equal to zero. For a respondent, the adjusted weight is equal to the reciprocal of the response rate in the respondent’s adjustment cells.

Table A4 includes the summary characteristics of the base weights and adjusted weights for respondents and nonrespondents. Note that the sum of the adjusted weights for respondents equals the sum of the base weights for all individuals in the population, which is equal to the number of individuals in the population.

Table A4. Summary Characteristics of 2020 Base Weights and 2020 Adjusted Weights

Characteristic	2020 base weights		2020 adjusted weights	
	Respondents	Nonrespondents	Respondents	Nonrespondents
Minimum	1.0	1.0	3.20	0.0
Maximum	1.0	1.0	13.75	0.0
Mean	1.0	1.0	4.31	0.0
Median	1.0	1.0	3.65	0.0
Sum	28,282	93,698	121,980	0
	121,980		121,980	

HIGHLIGHTS FROM GOOGLE ANALYTICS

The following measures from Google Analytics provide unweighted information on the geographic location of visitors to the web survey and the web browsers they used.

Visits to Web Survey from Top 8 Known Countries and Territories

2020	2019	2018
<ul style="list-style-type: none"> United States (38,901 visits) Puerto Rico (332 visits) Germany (205 visits) Finland (179 visits) South Korea (161 visits) Netherlands (156 visits) Hong Kong (101 visits) Singapore (95 visits) 	<ul style="list-style-type: none"> United States (46,634 visits) Puerto Rico (328 visits) Germany (251 visits) Guam (66 visits) Kuwait (43 visits) South Korea (41 visits) Afghanistan (35 visits) Japan (35 visits) 	<ul style="list-style-type: none"> United States (44,158 visits) Puerto Rico (273 visits) Germany (202 visits) Guam (64 visits) Afghanistan (46 visits) South Korea (44 visits) Japan (38 visits) Kuwait (30 visits)

Top 10 Visits by Cities

2020	2019	2018
<ul style="list-style-type: none"> San Antonio (907 visits) Houston (814 visits) Marietta (701 visits) Dallas (625 visits) Colorado Springs (559 visits) Los Angeles (527 visits) Chicago (515 visits) New York (444 visits) Charlotte (442 visits) Jacksonville (358 visits) 	<ul style="list-style-type: none"> Atlanta (1,622 visits) San Antonio (1,296 visits) Dallas (1,230 visits) Houston (936 visits) Washington (881 visits) Austin (846 visits) Chicago (838 visits) Los Angeles (761 visits) New York (730 visits) Nashville (720 visits) 	<ul style="list-style-type: none"> New York (1,899 visits) Atlanta (1,371 visits) Houston (1,206 visits) San Antonio (1,086 visits) Dallas (1,059 visits) Chicago (797 visits) Washington (766 visits) Los Angeles (754 visits) Orlando (673 visits) Charlotte (647 visits)

Top 5 Browsers Used by Visitors

2020	2019	2018
<ul style="list-style-type: none"> Safari (47.2%) Chrome (36.8%) Samsung Internet (8.9%) Edge (3.2%) Firefox (1.8%) 	<ul style="list-style-type: none"> Safari (40.2%) Chrome (37.9%) Samsung Internet (9.2%) Firefox (4.6%) Internet Explorer (4.3%) 	<ul style="list-style-type: none"> Safari (41.4%) Chrome (39.3%) Samsung Internet (6.6%) Internet Explorer (5.2%) Edge (3.8%)



The Wounded Warrior Project® Annual Warrior Survey gives injured post-9/11 veterans a voice — a platform to be heard by individuals and organizations who can initiate change. This report is intended to tell their stories, uncover their greatest needs, and inform the efforts of those who support our mission of honoring and empowering wounded warriors. For further guidance or inquiries, please email warriorsurvey@woundedwarriorproject.org.

AnnualWarriorSurvey.com



4899 Belfort Road, Suite 300 ★ Jacksonville, Florida 32256