2019 HEALTH OF THE ARNG FORCE

Create a **healthier force** for tomorrow.

U.S. ARMY

ARMY NATIONAL GUARD

APHC

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Daniel R. Hokanson
Lieutenant General, US Army
Director, Army National Guard

Individual Soldier readiness is the cornerstone to building and sustaining a ready Army National Guard, and medical readiness is integral to our force being warfighting-capable and governor-responsive.

Continuing with the positive momentum the U.S. Army Public Health Center's *Health of the Force* series provides to the Army National Guard, the 2019 *Health of the ARNG Force* report will highlight key health metrics and trends about our Citizen Soldiers. Maintaining what we do well, while focusing on areas of improvement, will help us in achieving a healthy, ready ARNG Force.

The 2019 *Health of the ARNG Force* report continues the focus on preventive health and behavioral indicators to provide leaders better insight in addressing factors that affect operational and medical readiness in the Army National Guard. This effort includes vignettes that address a holistic approach to recognizing components of wellness that can influence readiness.

As leaders, we must ensure the ARNG is ready when called upon to defend our nation both at home and abroad. This means we must look at physical and mental fitness as essential elements to personal and professional well-being. Increased retention rates, lower costs associated with disabilities, and better health for the ARNG community are positive measures that can help maximize our readiness.

We must all work together to support a healthy ARNG Force that is Always Ready, Always There!

John F. Sampa
Command Sergeant Major
Army National Guard

Now more than ever the Army National Guard must focus on readiness. Our communities and our nation expect Citizen Soldiers to be ready to respond to both overseas contingency operations and domestic missions supporting the homeland. It is essential that we commit ourselves to being physically fit, mentally prepared, and resilient. This means being healthy and warfighter ready when the nation calls or when activated by state governors for a homeland response mission.

Personal accountability begins with you. Please take a look at this report and understand how the data impact your state's readiness. Whether your metrics validate your success or highlight areas for improvement, continue to find ways to stay mission-focused, deployable, and healthy. Do not rest on your laurels and compare yourself to other states; rather, see how the scope of your influence can continue to refine your state's best practices to ensure every Citizen Soldier is ready today and tomorrow. Take the time as leaders to engage your Soldiers by coaching, mentoring, and teaching on the importance of individual medical readiness.

I will stress again that readiness events require the same intensity as any training exercise when it comes to planning and execution. Medical readiness events at the unit level lead to positive results, and being accountable to yourself and the unit is instrumental. "Present and ready for duty" is a sign of commitment. More importantly, it means you understand the importance of medical readiness.

Finally, you are in control of your personal health. Take the time to evaluate your fitness level and make sure to take care of yourself. Physical activity, nutrition, and sleep are simple fundamentals toward maintaining a healthy mind and body. Embrace readiness as our top priority and understand that your health is integral to being a ready and deployable force.

Always Ready, Always There!

The 2019 Health of the U.S. Army National Guard Force Report

Welcome to the 2019 *Health of the U.S. Army National Guard (ARNG) Force* report, which presents health surveillance data from fiscal year 2018 (FY18; 01 OCT 17 to 30 SEP 18). Similar to the U.S. Army Active Component (AC) *Health of the Force* (HOF) report, this publication describes State, Territory, and area population health metrics for ARNG Soldiers based on national leading health indicators and military-relevant measures of health readiness. Soldier readiness has been identified as the U.S. Army's number one priority, and medical readiness is a key component of readiness for both the AC and ARNG. The HOF aims to report on current Soldier health and offers suggestions/resources for how Soldier readiness could be improved by understanding the impact of select health factors.

The Citizen Soldiers of the ARNG face numerous health challenges, some of which are distinct from those of the AC population. Due to the unique roles in which ARNG Soldiers serve, and their limited time spent in uniform (thus limiting their access to TRICARE coverage), the majority of ARNG Soldiers have more in common with civilian populations than with their AC counterparts.

Roles of ARNG Soldiers

The majority of ARNG members (84%) are Traditional Soldiers (TS), i.e., those who are obligated to complete 39 total training days per year (2 drill days/month x 12 months + 15 days annual training (AT)). TS are, on average, younger than Active Guard Reserve (AGR) Soldiers or National Guard dual-status technicians (Military Technicians, known as Mil Techs) and must manage the demands of civilian careers and educational pursuits while fulfilling their annual ARNG duties. While TS enjoy educational benefits and monetary compensation based on their 39 total training days, their service in the ARNG does not include the benefit of access to either TRICARE or state-sponsored health insurance.

The professional backbone of the ARNG force is comprised of AGR Soldiers who serve full-time, in the same manner as AC Soldiers, according to Army Regulation (AR) 135–18 (DA, 2019a). There are two types of AGR Soldiers:

- Title 10 AGR Soldiers serve in the Army National Guard of the United States, which is managed by the National Guard Bureau, and are deployable worldwide.
- Title 32 AGR Soldiers (Full Time National Guard Duty, FTNGD) serve in the National Guard units of the 50 U.S. States, 3 Territories, and the District of Columbia (referred to as "State/Territory" throughout this report) and are deployable within them.

In addition to their full-time jobs, AGR Soldiers must complete the standard 39 total training days per year with the unit or organization they support, as required of TS. Like their AC counterparts, AGR Soldiers are covered by TRICARE PRIME health insurance.

ARNG Mil Techs are civilians who work full-time for the National Guard as State employees, providing continuity and expertise in specialized military occupations. Though employed full-time by the State, Mil Techs must also complete the standard 39 training days per year required of ARNG TS (unless otherwise mobilized for a State/Federal mission). As full-time employees of their respective States, ARNG Mil Techs have the benefit of access to state-sponsored health insurance plans.

ARNG Data Availability

The data sources used to describe AC Soldiers' health and readiness status are not generally applicable to ARNG Soldiers, as no unified collection system of individual medical data currently exists. The 2019 *Health of the ARNG Force* report relies on administrative data collected and maintained independently by the ARNG Bureau and on self-reported information collected through the Department of Defense (DOD) Periodic Health Assessment (PHA). (DOD, 2016) during each Soldier's annual medical exam. Available data describe ARNG Soldiers in terms of their roles as AGR/Mil Techs or Traditional Soldiers. The AGR and Mil Techs groups were combined for analysis and reporting as members of both groups are employed full-time, year-round; fulfill similar ARNG roles/duties; and have similar access to continuous health insurance (TRICARE or state-sponsored health insurance) provided by the ARNG or State. Differences in Soldier age distribution between TS and AGR/Mil Techs are important to consider when assessing differences in the health status and healthcare needs/services of these two populations. It may not be appropriate to make direct comparisons between the health status and outcomes reported here and those reported for AC Soldiers.

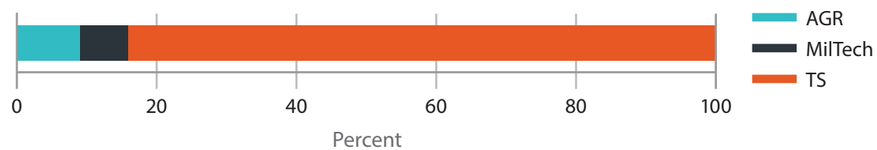
This *Health of the ARNG Force* edition describes ongoing efforts by the ARNG to improve the health and readiness of ARNG Soldiers at the organization and State levels. The data described in this report, coupled with information from ongoing health promotion efforts, create a valuable tool with which leaders at all levels can pinpoint challenges and identify possible solutions. It is hoped that the 2019 *Health of the ARNG Force* may facilitate informed decisions that ultimately improve the readiness and health of ARNG Soldiers, Civilians, and Families.

> **"With all the changes nearly four centuries have brought with them, what has made the National Guard great remains the same—that's our people."**
>
> **—LTG Daniel R. Hokanson**
> Director, U.S. Army National Guard

DEMOGRAPHICS

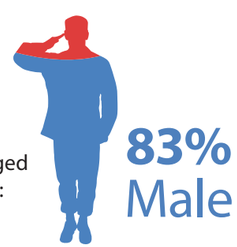
Soldier Type

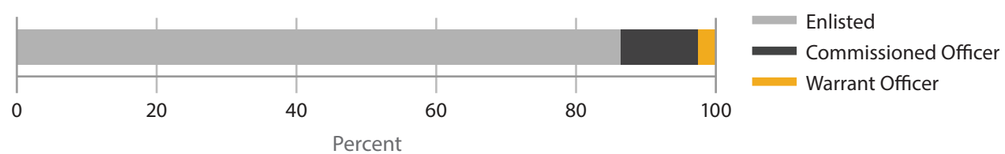
In FY18, the ARNG consisted of 335,204 Soldiers. TS comprised 84% of the ARNG in FY18, a slight decrease from 85% in FY17. AGR/Mil Techs comprised the remaining 16% (9.0% and 6.8%, respectively).



Sex and Rank/Grade

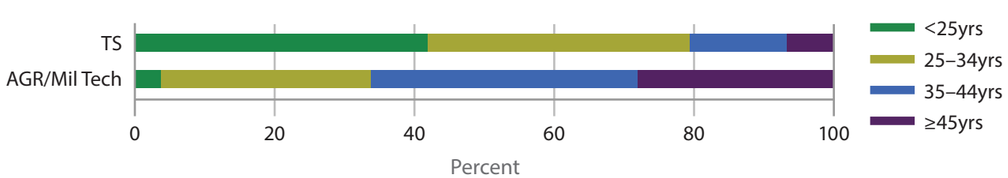
The majority of ARNG Soldiers were male (83%) and Enlisted (86%). Of the Officers, 2.6% were Warrants, and 11% were Commissioned. These data are virtually unchanged from FY16 and FY17. The sex distribution of Soldiers differed slightly by Soldier type: 82% of TS were males, as were 83% of AGR/Mil Techs.



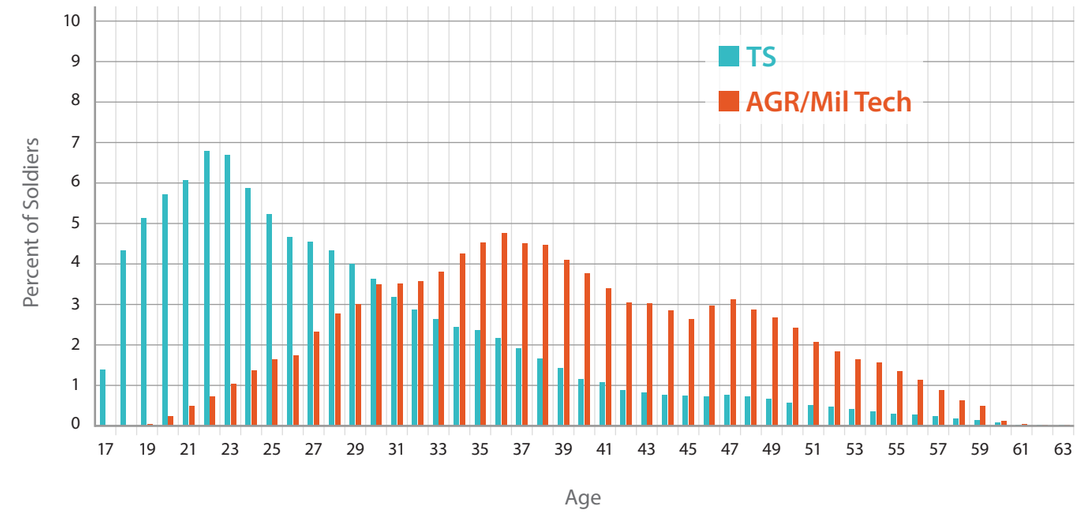


Age

The age distribution of ARNG Soldiers differed by Soldier type. In FY18, 42% of TS were 25 years of age or younger, while AGR/Mil Techs showed an older peak age at 35–44 years old. The median age of TS was 26 years while AGR/Mil Tech Soldiers' median age was 38 years. The mean age of TS was 29 years compared to 39 years among AGR/Mil Tech Soldiers. The difference in mean age between these two groups is expected since AGR/Mil Techs complete specialized duties that may require additional training and experience. It is important to consider this inherent difference in mean age when evaluating the health status and healthcare needs/services of these two populations.

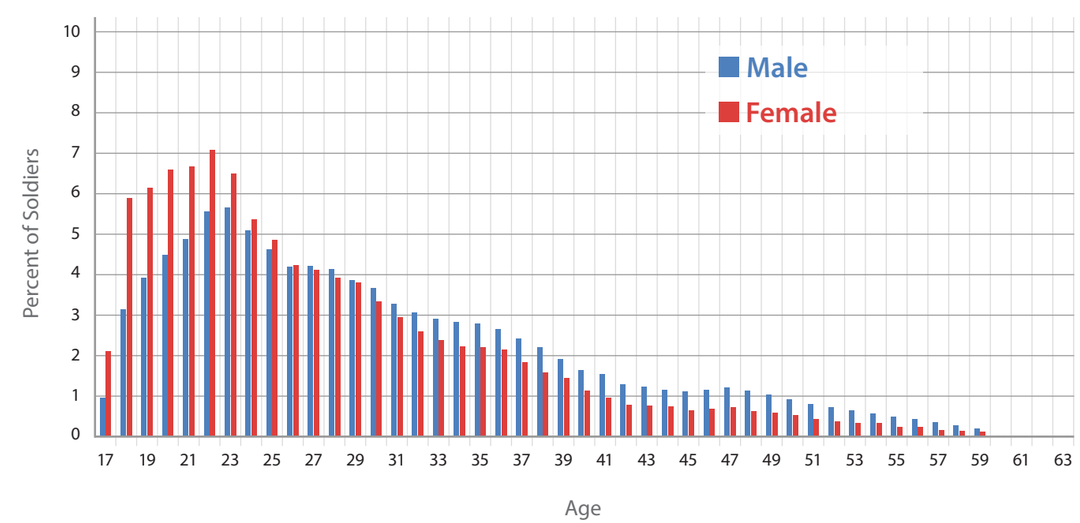


Age Distribution by Soldier Type (TS vs. AGR/Mil Tech) Status, ARNG Soldier, FY18



Age Distribution by Sex, ARNG Soldiers, FY18

The age distribution of ARNG Soldiers was similar among males and females in FY18. However, the proportion of female Soldiers between the ages of 18 and 26 was higher than the proportion of male Soldiers in that age group. This outcome represents a slight shift from FY16 and FY17, where the proportion of female Soldiers between the ages of 19 and 29 was higher than the proportion of male Soldiers in that age group.

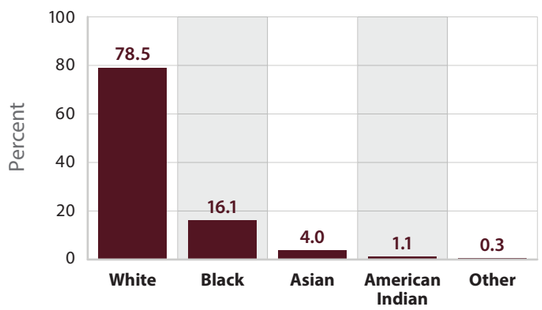


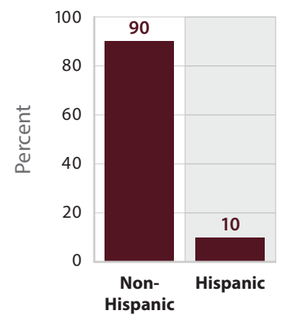
DEMOGRAPHICS (cont.)

Race/Ethnicity

In FY18, the racial/ethnic composition of the ARNG force was primarily White (79%) followed by Black (16%), Asian (4.0%), American Indian (1.1%), and Other (0.3%). Additionally, most ARNG Soldiers (90%) self-identified as Non-Hispanic.

Race/Ethnicity Distribution, ARNG Soldiers, FY18

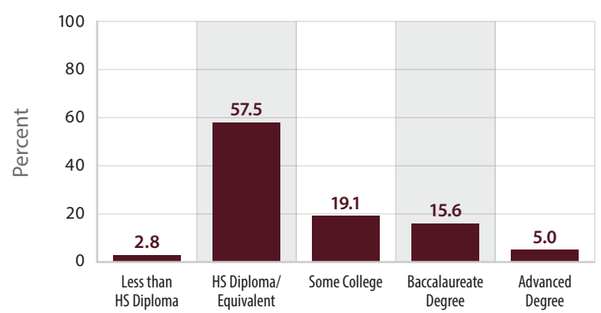




Education Level

Educational attainment can serve as an important proxy measure for socioeconomic status, which directly influences overall health. The ARNG offers education benefits and incentives to its Soldiers to further their professional development and enable them to better complete their ARNG missions. In FY18, 58% of ARNG Soldiers had earned a high school diploma or equivalent as their highest level of education, while 40% of ARNG Soldiers had pursued post-secondary education.

Educational Attainment, ARNG Soldiers, FY18



FY18 SUMMARY STATISTICS

HEALTH METRICS

When possible, HOF metrics are reported in terms of ARNG Soldier type (AGR/Mil Tech or TS). Data by Soldier type were not available for all metrics in this report.

Medical Readiness

Of ARNG Soldiers, 87% were medically ready for deployment within 72 hours (Medical Readiness Classification (MRC) 1 or 2).

Dental Readiness

Of ARNG Soldiers, 93% were dentally ready or partially dentally ready for deployment (Dental Readiness Classification (DRC) 1 or 2).

FY18 SUMMARY STATISTICS (cont.)

Hearing (Significant Threshold Shift)

In FY18, 6.1% of ARNG Soldiers experienced a new hearing injury.

Behavioral Health

Among TS, 3.8% endorsed symptoms consistent with depression, and 5.1% endorsed symptoms of posttraumatic stress disorder (PTSD). Among AGR/Mil Tech Soldiers, 4.1% endorsed symptoms consistent with depression, and 6.7% endorsed symptoms consistent with PTSD.

Drug Use

In FY18, 1.8% of ARNG Soldiers tested positive for illegal drug use.

Tobacco Use

Among TS, 13% smoked tobacco, and 13% used smokeless tobacco; among AGR/Mil Tech Soldiers, 13% smoked tobacco, and 15% used smokeless tobacco.

Obesity and Overweight

In FY18, 26% and 48% of male ARNG Soldiers were obese and overweight, respectively, while 13% and 39% of female ARNG Soldiers were obese and overweight, respectively. Among TS, 24% were classified as obese and 47% were overweight. Among AGR/Mil Tech Soldiers, 32% were classified as obese, and 53% were overweight.

Flagged for Weight

Of ARNG Soldiers, 4.9% were flagged for weight in FY18.

Army Physical Fitness Test (APFT) Failure

Of ARNG Soldiers, 13% failed the APFT in FY18.

Hazardous Alcohol Use

Among TS, 5.8% were classified as exhibiting hazardous levels of alcohol use, while 5.2% of AGR/Mil Techs were classified as exhibiting hazardous levels of alcohol use.

Hypertension

Hypertension was diagnosed in 6.0% of ARNG Soldiers in FY18. Of these diagnoses, 4.6% were among TS, and 13% were among AGR/Mil Tech Soldiers.

Performance Triad

Sleep

Among ARNG Soldiers, 49% reported getting 7 or more hours of sleep per night on weeknights, and 76% achieved this target on weekends.

Activity

Among ARNG Soldiers, 76% reported engaging in 2 or more days of resistance training per week, and 84% achieved adequate moderate and/or vigorous aerobic activity each week.

Nutrition

Among ARNG Soldiers, 35% reported eating two or more servings of fruit per day, and 46% reported eating two or more servings of vegetables per day.

ARNG Health Index Scores

Health metrics included in this report were compiled into a weighted ARNG Health Index Score that summarizes and ranks the overall health of ARNG Soldiers in each State/Territory. While health indices provide a measure of health that helps identify populations that could benefit from health prevention measures, aggregate indices may hide some of the driving factors and social determinants of health. Healthcare decision- and policy-makers must further review individual measures that comprise the index in order to identify and effectively target key outcomes or behaviors that are the most significant health and readiness detractors for each State/Territory.

HEALTH METRICS

Overview

The Chief Surgeon of the U.S. ARNG has identified medical readiness as the leading public health priority for the ARNG. Presented in this report are data on overall Soldier medical readiness, as well as metrics on Force health factors and outcomes that can directly impact Soldier medical readiness. This report seeks to serve as a tool for ARNG leaders at all levels to identify and track some of the underlying factors and conditions impacting Soldier health and readiness. Once armed with this actionable knowledge, ARNG leaders can create intervention programs, policies, and procedures to improve individual Soldier health and the readiness of the overall Force to ensure success of the current and future dual mission of the ARNG.

2019 *Health of the ARNG Force* Metrics:

- Medical and Dental Readiness
- Hearing
- Behavioral Health
- Drug Use and Testing
- Hazardous Alcohol Use
- Tobacco Use
- Obesity and Overweight
- Flagged for Weight
- APFT Failure
- Hypertension

Medical and Dental Readiness

Medical readiness is a key part of the overall Soldier readiness priority for both the AC and the ARNG. To enable commanders to manage their forces, each Soldier is assigned an MRC. Soldiers classified in MRC1 or MRC2 status are medically ready and deployable. Soldiers in MRC3 status are not medically ready to deploy. Soldiers classified in MRC4 status have either missed or are overdue for a mandatory medical exam and thus are not medically ready to deploy.

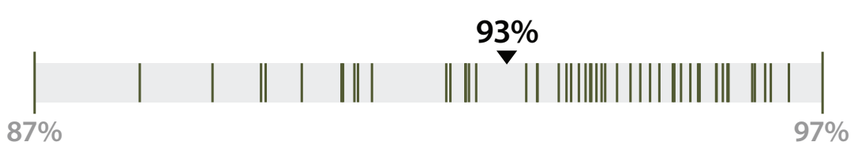
Dental readiness is a vital part of Soldier overall medical readiness. Soldiers that are classified as DRC1 or DRC2 are dentally ready and immediately deployable. Soldiers with a DRC3 or DRC4 classification are not dentally ready to deploy. DRC3 status is assigned due to a dental condition that requires urgent or emergent treatment. A DRC4 classification is assigned to Soldiers delinquent or overdue for their annual dental exam.

In FY18, 87% of ARNG Soldiers were considered medically ready and deployable (MRC1 or MRC2) within 72 hours. The proportion of ARNG Soldiers medically ready remained unchanged from FY16 (86%) and FY17 (86%). In FY18, 4.4 out of every 5 ARNG Soldiers across States/Territories were able to be called upon during a mobilization/deployment event based on medical readiness. The proportion of Soldiers medically ready varied by location, ranging from 77% to 94% across States/Territories.

The proportion of ARNG Soldiers dentally ready and deployable (DRC1 or DRC2) remained stable at 93% between FY17 and FY18. In FY18, 4.7 out of every 5 ARNG Soldiers across States/Territories were able to be called upon during a mobilization/deployment event nationwide based on dental readiness. The proportion of Soldiers dentally ready varied by location, ranging from 87% to 97% across the States/Territories.

Overall, 87% of ARNG Soldiers were classified as medically ready for deployment within 72 hours.

Prevalence ranged from 77% to 94% across the States/Territories.



Overall, 93% of ARNG Soldiers were classified as dentally ready for deployment within 72 hours.

Prevalence ranged from 87% to 97% across the States/Territories.

States/Territories with the highest medical readiness, ARNG Soldiers, FY18		States/Territories with the highest dental readiness, ARNG Soldiers, FY18	
RANK		RANK	
1. North Dakota	94%	1. North Dakota	97%
2. West Virginia	92%	2. Utah	97%
3. New Hampshire	92%	3. Indiana	97%
4. New Mexico	92%	4. Arkansas	97%
5. Massachusetts	92%	5. Maine	97%

SPOTLIGHT

THERE'S AN APP FOR THAT:

THE PORTAL FOR A READY & RESILIENT (SOLDIER) MOBILE ENTERPRISE (PR2ME)

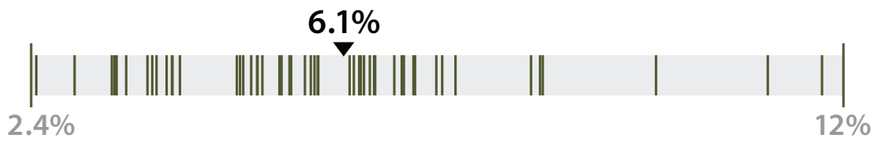
The ARNG continually reports low completion rates for Part A of the DOD PHA, causing unforeseen delays and avoidable costs during readiness events. TS may not have access to military (.mil) networks in order to complete Part A of the DOD PHA, and the removal of the Medical Operational Database (MODS) from the Defense Information Systems Agency (DISA) whitelist continues to prevent ARNG soldiers from completing Part A of the DOD PHA from publicly available commercial (.com) networks.

To combat these ongoing issues, the ARNG is piloting a mobile technology developed by the Telemedicine and Advanced Technology Center (TATRC) called Portal for a Ready & Resilient (Soldier) Mobile Enterprise (PR2ME) that will allow geographically dispersed ARNG Soldiers to complete the entire Part A Soldier questionnaire of the DOD PHA via their personally-owned mobile device without the need for a Common Access Card (CAC) or .mil network connection. The PR2ME application will also provide ARNG Soldiers with tailored health messages based on the results of the DOD PHA Part A, as well as contact information for ARNG resources that can assist in improving the health of Citizen Soldiers.

The ARNG Office of the Chief Surgeon is tailoring an IT solution to ensure a DOD PHA can be moved from a secure smartphone application and TATRC servers to any Service or Component medical readiness system of record (SOR). The SOR for the U.S. Army is the Medical Protection System (MEDPROS). Pilot testing of PR2ME is currently scheduled for late fall 2019 in select State/Territories with subsequent rounds of test continuing into calendar year 2020 (CY20). Based on the results of PR2ME pilot testing, this mobile application may be available ARNG-wide in late CY20.

Hearing

Hearing is an important requirement for Soldier performance, as it affects both survivability and lethality and is essential in all Soldier environments. **Good hearing preserves situational awareness for critical communication abilities and improves communication responses, crucial to success on the battlefield.** Critical communication abilities include acoustic stealth, detection, localization, and identification tasks. Hearing Readiness (HR) is an essential component of medical readiness and is monitored via the MEDPROS through information from the Defense Occupational and Environmental Health Readiness System - Hearing Conservation (DOEHRS-HC) surveillance hearing test data. DOEHRS-HC is the tri-Service surveillance hearing test SOR. The DOEHRS-HC supports prevention of significant hearing loss through early detection of changes in hearing due to exposure to hazardous noise or ototoxic chemicals. The Army Hearing Program (AHP) is a hearing loss prevention program that incorporates noise hazard identification, engineering controls, monitoring audiometry, hearing protection use, hearing health education, and command enforcement.



Overall, 6.1% of ARNG Soldiers experienced a new case of Significant Threshold Shift (STS), or decreased hearing.

Prevalence ranged from 2.4% to 12% across the States and Territories.

Active surveillance to identify decreases in hearing and to eliminate misclassification of temporary decreases in hearing is an AHP best practice. While follow-up hearing test compliance for ARNG Soldiers with positive STS/decreased hearing has increased, it remains well below the AHP goal of >70%. Increased follow-up hearing test compliance will improve STS incidence accuracy and will identify ARNG Soldiers/Civilians requiring additional hearing health services. Investing in efforts to prevent hearing loss in ARNG Soldiers/Civilians will increase unit productivity, survivability and lethality, and quality of life for immediate and future communication situations among all personnel exposed to hazardous noise.

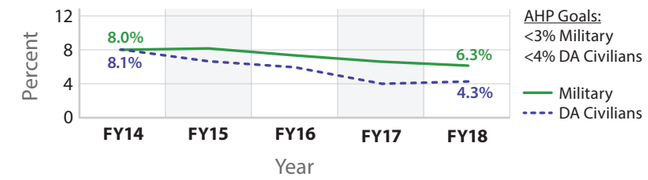
States/Territories with the Highest Rate of Hearing Readiness, ARNG Soldiers, FY18

RANK		
1.	North Dakota	92%
2.	Utah	92%
3.	Alaska	90%
4.	Idaho	88%
5.	Maine	87%

Hearing Injuries

Data from DOEHRS-HC show decreased hearing injuries and hearing impairment among ARNG Soldiers from FY14 to FY18. FY18 rates decreased to 6.3%, down from 8.0% in FY14, for ARNG Soldiers and to 4.3%, down from 8.1% in FY14, for ARNG DA Civilians. While these rates are trending toward the AHP goal of **<3% for Military and <4% for DA Civilians,** room for improvement remains, particularly for ARNG Soldiers.

Percent New Cases Positive STS, ARNG Soldiers, FY14–18

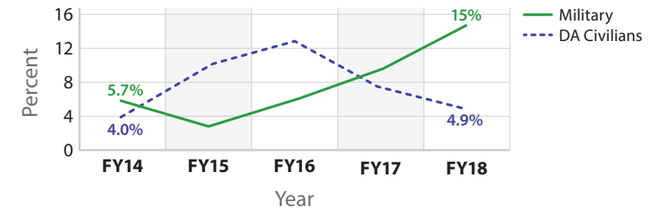


Source: DOEHRS-HC Data Repository (DR)

STS Follow-up Compliance

AHP policy requires the completion of the DOEHRS-HC follow-up test series when DOEHRS-HC identifies a potential hearing injury. ARNG Soldier follow-up test compliance rates improved to an all-time high of 15% in FY18, up from 5.7% in FY14; however, they remain significantly below the AHP goal of >70%. ARNG DA Civilian positive STS follow-up test compliance rates vary considerably and increased slightly to 4.9% in FY18, up from 4.0% in FY14, yet remain well below the FY16 ARNG high of 13% and the AHP goal of >70%.

Percent Positive STS Follow-up Hearing Test Compliance, ARNG Soldiers, FY14–18

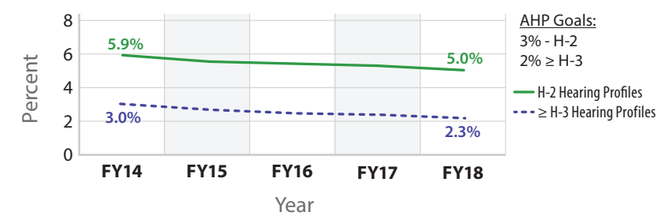


Source: DOEHRS-HC DR

Hearing Acuity

DOEHRS-HC data indicate the number of ARNG Soldiers receiving a periodic (DD Form 2216) hearing test increased to 242,189 in FY18 from 183,864 in FY14. H-2 hearing profiles (clinically significant hearing loss) decreased to 5.0% in FY18 from 5.9% in FY14, trending in the desired direction, even with an increase in the number of ARNG Soldier periodic hearing tests administered. ARNG Soldiers requiring a fitness-for-duty hearing readiness evaluation (≥H-3 profiles indicative of moderate hearing impairment) decreased to 2.3% in FY18 from 3.0% in FY14, trending in the desired direction.

Prevalence of Hearing Profiles, ARNG Soldiers, FY14–18

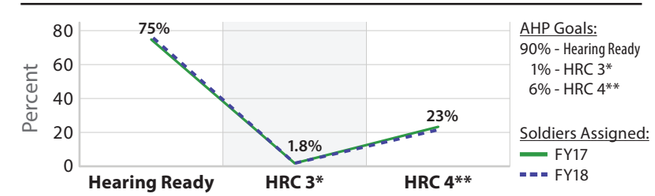


Source: DOEHRS-HC DR

Hearing Readiness

In FY18, averaged monthly ARNG MEDPROS Hearing readiness data indicated 75% of ARNG Soldiers were hearing ready. In contrast, 23% of ARNG Soldiers (78,198 out of 336,241) were not hearing ready and were identified as Hearing Readiness Classification (HRC) 4. This slight increase from 22% in FY17 occurred even with a small decrease of 5,593 in assigned ARNG Soldiers in FY18. Soldiers with an HRC 4 are not hearing ready and are either overdue for their annual hearing test or require a follow-up hearing test(s) to identify true hearing ability.

Prevalence of Hearing Readiness Classifications, ARNG Soldiers, FY17–18



Source: DOEHRS-HC Data in MEDPROS

* Needs full evaluation; DA Form 3349 not completed; needs MAR2; does not meet retention standards w/o hearing aid

** No hearing test within 12 months; follow-up required

Behavioral Health

The cumulative effect of Soldier and Civilian life stressors can be profound on the psychological well-being and condition of ARNG Soldiers, their Families, and the community at large. As a response to these cumulative stressors, ARNG Soldiers are at risk of developing behavioral health disorders such as PTSD, depression, and substance use disorder. The impacts of undiagnosed and untreated behavioral health disorders among ARNG Soldiers can be extremely detrimental to the Force, potentially resulting in increased levels of medical boarding and early discharge, and potentially associated with suicidal behavior. In FY18, **3.8% of ARNG Soldiers reported symptoms that could be consistent with a diagnosis of clinical depression, a slight decrease from FY17 (4.5%); 5.1% of ARNG Soldiers reported symptoms that could be consistent with a diagnosis of PTSD, a 0.9% percent decrease from FY17.** The observed increase in reported symptoms may, in fact, reflect lower levels of stigma and greater access to care.

Overall, 3.8% of ARNG Soldiers reported symptoms consistent with clinical depression.

Prevalence ranged from 2.4% to 6.4% across the States/Territories.

Overall, 5.1% of ARNG Soldiers reported symptoms consistent with PTSD.

Prevalence ranged from 2.7% to 11% across the States/Territories.

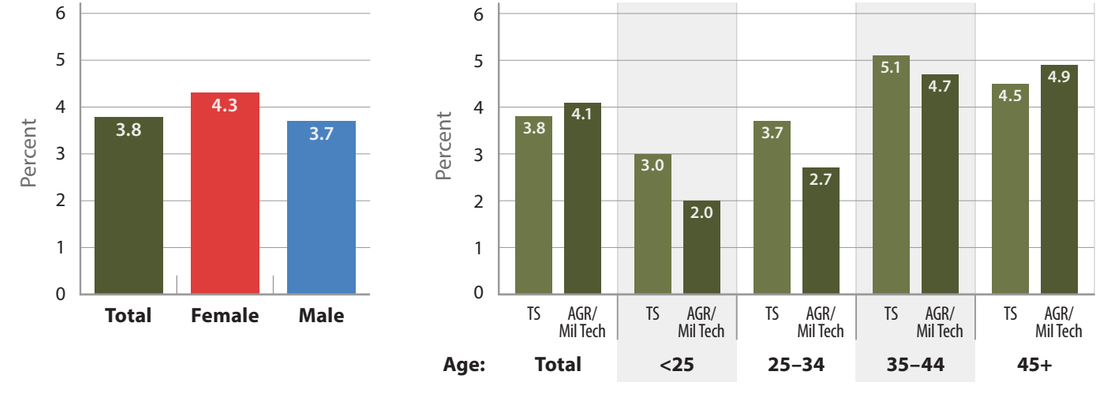
BEST RANKING STATES/TERRITORIES

States/Territories are not rank-ordered for behavioral health conditions because higher percentages of Soldiers endorsing symptoms of behavioral health disorders may, in fact, reflect lower levels of stigma and higher levels of self-awareness among Soldiers. Identifying behavioral health concerns early and encouraging Soldiers to seek treatment are priority goals of the ARNG and lead to better long-term outcomes. Soldiers who do not receive timely treatment for behavioral health concerns are at risk for negative outcomes and decreased readiness.

Percent Reporting Symptoms Consistent with Depression by Sex, ARNG Soldiers, FY18

Percent Reporting Symptoms Consistent with Depression by Age and Soldier Status, ARNG Soldiers, FY18

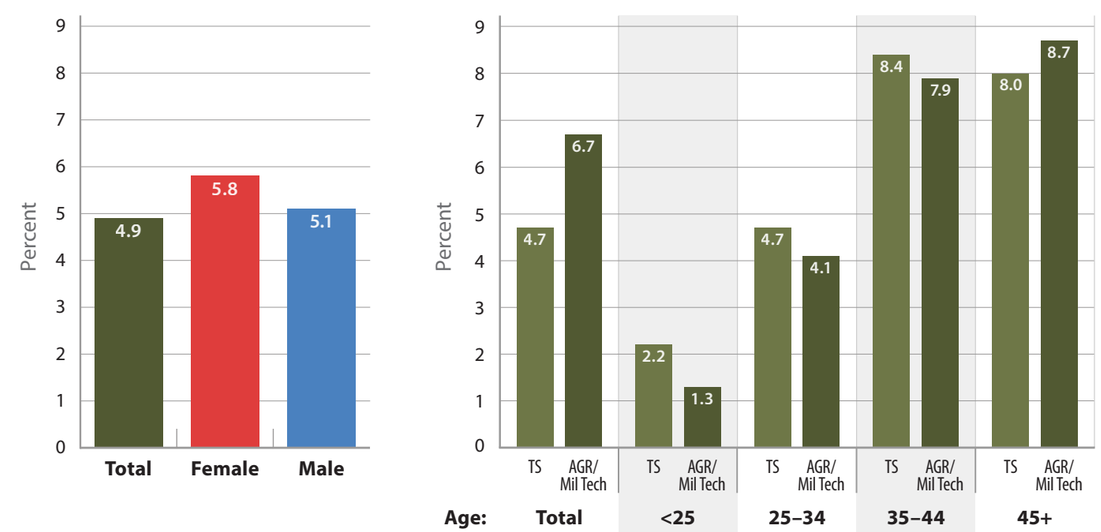
Examining depression Patient Health Questionnaire Depression Scale (PHQ-8) results by Soldier sex reveals that female Soldiers (4.3%) were slightly more likely than male Soldiers (3.7%) to report symptoms that could be consistent with a diagnosis of depression.



Percent Reporting Symptoms Consistent with PTSD by Sex, ARNG Soldiers, FY18

Percent Reporting Symptoms Consistent with PTSD by Age and Soldier Status, ARNG Soldiers, FY18

Examining PTSD Checklist–Civilian Version (PCL-C) results by Soldier sex reveals that female Soldiers (5.8%) were slightly more likely than male Soldiers (5.1%) to report symptoms that could be consistent with a diagnosis of PTSD.



SPOTLIGHT

ARMY CHAPLAINS:
A SOLDIER'S BATTLE BUDDY ON AND OFF THE BATTLEFIELD

The primary mission of the Unit Ministry Team (UMT) is to provide for the free exercise of religion for all faiths. Chaplains advise the command on a wide range of issues, as needed, including, but not limited to—

- Religious accommodation.
- Morale and Soldier welfare support.
- Behavioral and mental health indirect support.
- Daily life issues that may be impacting Soldiers and their Families.

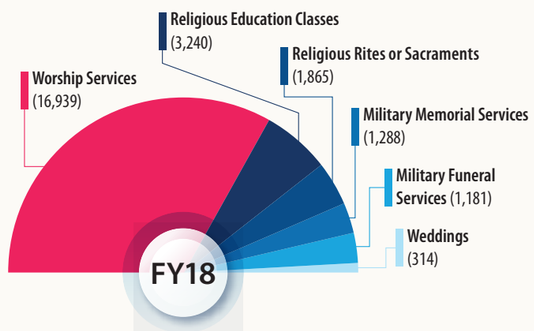
Ultimately, the ability of the UMT to communicate and connect with Soldiers and Families (both religious and nonreligious) ensures another layer of resilience, thereby fostering the warfighter readiness mindset. Religious affairs specialists also play an important role and extend the reach of the UMT by directly communicating with personnel throughout the unit.

Both Chaplains and religious affairs personnel are bound by strict confidentiality guidelines. This means all communication with a Chaplain acting as a spiritual advisor, or with a religious affairs specialist in his or her official capacity, will not be disclosed to any third party, including the unit's chain of command. The unique, privileged nature of the UMT relationship gives Soldiers a safe environment in which to seek discreet and meaningful support for a number of intra- and interpersonal situations.

Furthermore, ARNG UMT personnel act as "gatekeepers" and have the ability to provide referrals to a number of Army support elements such as the Army Substance Abuse Program (ASAP), Army Behavioral Health, Army Equal Opportunity (EO), Sexual Harassment Assault Response Prevention (SHARP), Army Emergency Relief (AER), and Family Advocacy Program (FAP).

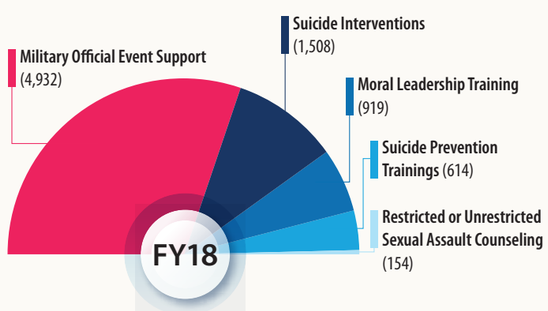
In FY18, ARNG UMT personnel conducted over 52,017 counseling sessions and an additional 8,297 sessions that resulted in personnel being referred to another Army agency for additional support in FY18. ARNG UMTs conducted approximately 25,000 direct religious support services in FY18.

Direct Religious Support Type and Quantity, FY18



In FY18, ARNG UMT personnel provided 8,127 active support services for ARNG personnel and their Families.

Command and Unit Support Type and Quantity, FY18



> **If you are going to win any battle, you have to do one thing. You have to make the mind run the body. Never let the body tell the mind what to do…the body is never tired if the mind is not tired.**
>
> **—GEN George S. Patton, Jr.**

SPOTLIGHT

SUICIDE PREVENTION:
A TOP PRIORITY FOR THE ARNG

The ARNG faces a number of unique challenges in preventing suicides, including a geographically dispersed work force, varied access to local resources, and limited Soldier face-to-face time with leadership.

Several demographic and interpersonal factors have been investigated for an ARNG Soldier's risk of death by suicide. The specific factors analyzed were rank/grade, deployment status, personal relationship status, age, race/ethnicity, and sex. Based on these analyses, the ARNG Soldiers most at risk for death by suicide are—

— Enlisted (E1–E4),

— Single,

— 18–24 years old,

— Caucasian, and

— Male.

Among Soldiers who died by suicide, 71% had never been deployed.

The analyses failed to conclude that there is an association between deployments and ARNG Soldier suicides.

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Current suicide trends among ARNG Soldiers

In CY14 through CY18, the incidence of suicide among ARNG Soldiers fluctuated monthly; changes between months were not statistically significant during this time period (Figure 1). The suicide incident rate for ARNG Soldiers increased from 22 per 100,000 ARNG Soldiers in CY14 to 35 per 100,000 ARNG Soldiers in CY18. This increase represents a statistically significant change over the 5-year period.

Figure 1. Incidence of Suicide, ARNG Soldiers, CY14–18

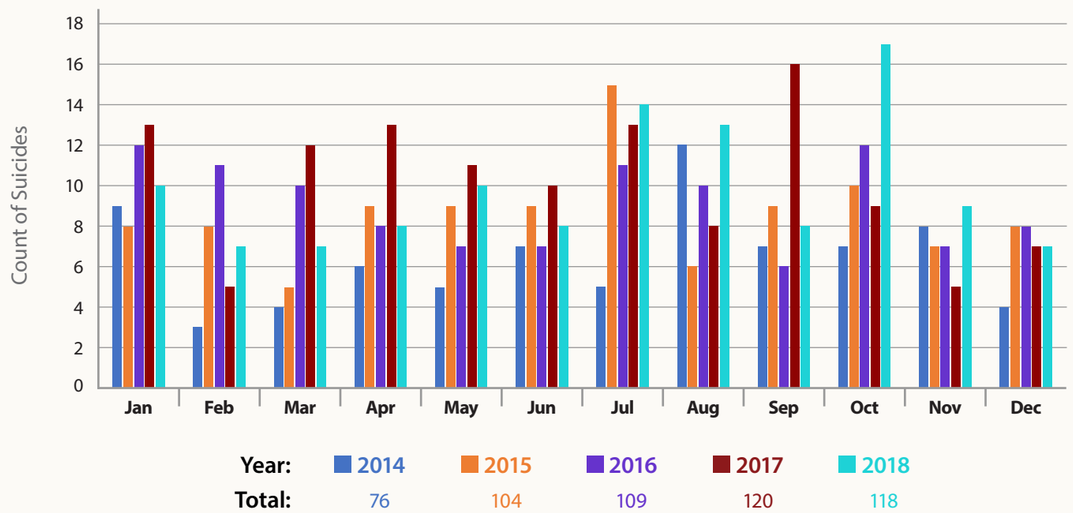
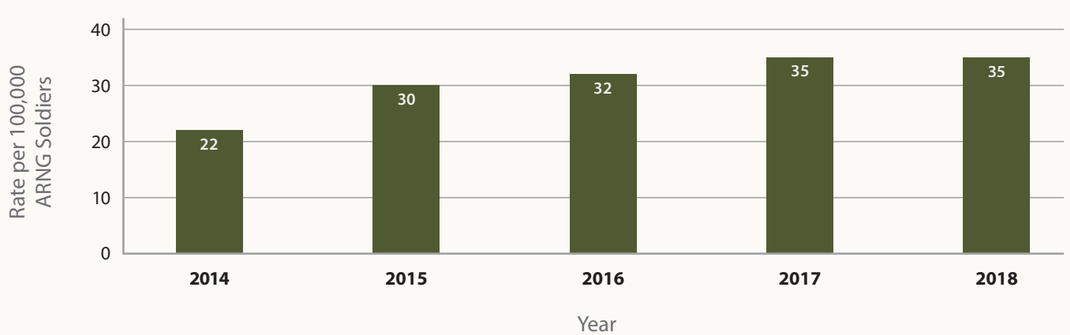


Figure 2. Suicide Rate per 100,000 ARNG Soldiers, CY14–18



Current Efforts

The ARNG established the Warrior Resilience and Fitness (WRF) Division to ensure that the multiple programs supporting the well-being and resiliency of ARNG members and their Families are synchronized to the greatest extent possible and meet the needs of the Force.

Current Initiatives include:

- **Vet Center Outreach Initiative**
  Partnership with Veterans Affairs for Mobile teams to provide support services to ARNG members during drill weekends.
- **Suicide Prevention and Readiness Initiative for National Guard (SPRING):**
  Partnership with Office of Secretary of Defense (OSD). A multi-phase approach to identify risk factors, proven protective strategies, and best practices for systematic data collection. This initiative will uncover both drivers for suicide and factors that enhance or interfere with resilience and/or readiness among ARNG members and their Families. Includes development of an integrated data repository, which can be used to build tools, drive strategic resourcing, and provide recommendations to ARNG leadership. Outputs from these tools may include metrics from ARNG wellness programs, evidence-based variables for monitoring program impact, and redeployment maps.
- **Star Behavior Health Providers Program**
  Partnership with Uniformed Services University to expand networks of civilian providers trained in military culture and mental health treatments
- **WRF Innovation Incubator**
  Pilot of State-level programs promising to enhance the readiness, wellness, and resilience of all geographically dispersed Soldiers, Veterans, and Families
- **Compendium of WRF Strategies**
  Compilation of evidence-based programs aimed at reducing a range of destructive behaviors (e.g., suicide, sexual assault, substance abuse) and promoting wellness and resiliency in the National Guard.

Risk Reduction Campaign Plan

The Risk Reduction Campaign Plan (R2CP) is currently being implemented in all States/Territories to address resilience and risk reduction in ARNG Soldiers and Family members. R2CP includes four main initiatives:

— Leader engagement
— Training
— Social media
— Analytics

National and Local Suicide Prevention Resources

Each State/Territory and the District of Columbia have a Director of Psychological Health who can help Soldiers and Family members access resources and support. Master resilience trainers, substance abuse trainers, and suicide prevention program managers are available to assist ARNG leadership with resilience training, risk reduction, and suicide prevention efforts.

ARNG Soldiers who need immediate help may call:

1-800-273-TALK (8255)

Information is also available at the MilSuite site:

https://www.milsuite.mil/book/groups/arng-ready-and-resilientcommunity-health-promotion-council-operations

SPOTLIGHT

MUSCULOSKELETAL DUTY-RELATED INJURIES

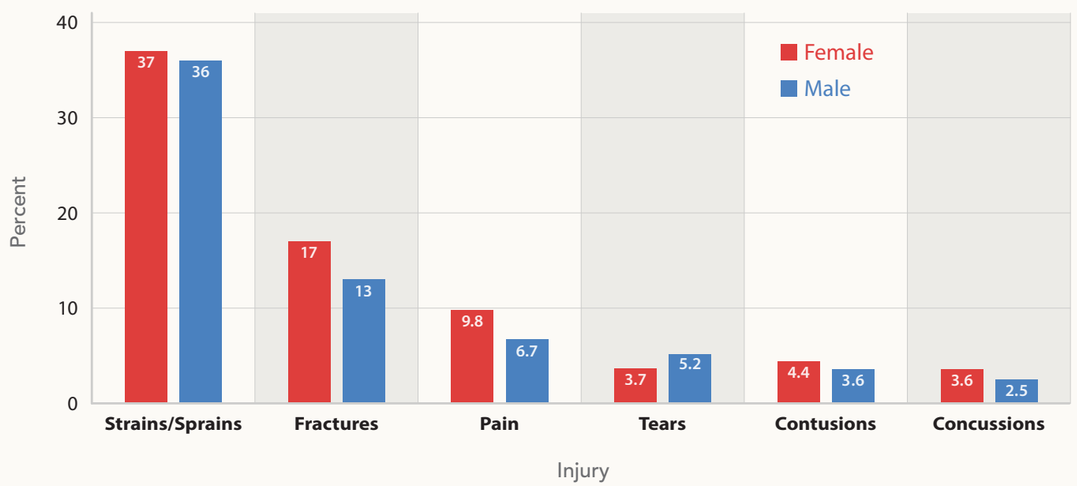
Musculoskeletal duty-related injuries (MDRI) are injuries that occur while ARNG Soldiers are in an active drilling status. In FY18, approximately 6,900 MDRI were reported and logged in the Medical Electronic Data (for) Care History and Readiness Tracking (MEDCHART) system.

Male Soldiers accounted for 81% of all MDRI; however, when MDRI rates are examined by sex, female Soldiers (2,300 per 100,000 Soldiers) have a higher rate of MDRI than males (2,000 per 100,000 Soldiers). This point is consistent with the paradigm that females generally have lower aerobic endurance and muscular strength—both of which are risk factors for injury—compared to men. When males and females possess similar aerobic endurance and muscular strength, the injury risk is similar (Anderson et al., 2017).

Sprains can be described as injuries to ligaments or joints, whereas strains are injuries to tendons or muscles. Sprains and strains accounted for approximately one-third (36%) of all MDRI among ARNG Soldiers in FY18, with female Soldiers (37%) experiencing slightly higher incidence than male Soldiers (36%). Approximately half of strains and sprains occurred in the lower extremities, consistent with multiple studies of military and other physically active populations (Cowan et al., 1993; Gardner, et al., 1998; Jones et al., 1993; Jones, Cowan et al., 1993; Jones et al., 1992; Jones et al., 1989).

Top Duty-Related Injuries, ARNG Soldiers, FY18

After strains/sprains (36%), the next most common MDRI reported by ARNG Soldiers in FY18 were fractures (14%), pain (7.3%), tears (4.9%), contusions (3.7%), and concussions (2.7%). The proportions of tears, contusions, and concussions were similar between males (5.2%, 3.6%, and 2.5%, respectively) and females (3.7%, 4.4%, and 3.6%, respectively). The burden of fractures differed slightly between males (13%) and females (17%); this difference was not statistically significant. More information on duty-related injuries can be found in AR 600-8-4 (DA, 2019b).



SPOTLIGHT

UNIT RISK INVENTORY HELPS MITIGATE HIGH-RISK BEHAVIORS

Approximately two-thirds of TS are 29 years of age or younger, and a majority of these Soldiers fall into a high-risk behavior age group (18 to 25 years) (DOD, 2014). High-risk behaviors are destructive and can lead to decreased Soldier and unit readiness. Unit commanders can use the Unit Risk Inventory (URI), a 53-item Soldier questionnaire, to identify and reduce high-risk behaviors (DOD, 2019c). The URI assesses the following areas:

- **Alcohol/drug use**
- **Command factors**
- **Stress levels**
- **Self perceptions**
- **Relationships**
- **Safe sex practices**
- **Child/spouse abuse**
- **Violence/crimes**
- **Suicidal indicators**
- **Financial problems**

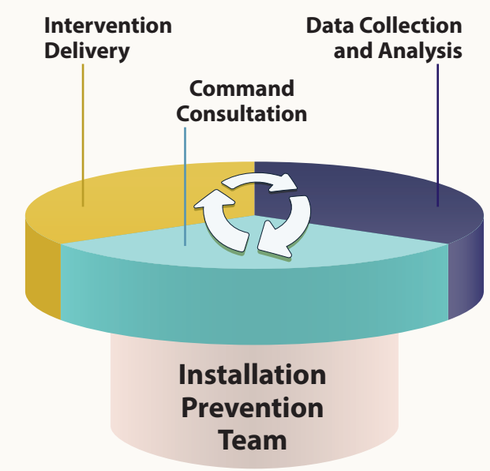
When a high-risk Soldier is identified, the unit commander is informed immediately and is advised to brief the Soldier on available resources. Results of the URI can be used to inform the development of a unit Risk Mitigation Plan (RMP). The RMP provides proposed unit education and early interventions using available ARNG, State, and local resources. Contracted staff support URI survey administration and analysis and help develop unit RMPs.

As of FY18, approximately 160,000 ARNG Soldiers had taken the URI. State leadership is encouraged to utilize the surveys to identify and promote programs and initiatives that mitigate Soldiers' high-risk behaviors.

For information on the URI, or to acquire a state-specific roll-up report, contact the State's or Territory's Alcohol and Drug Control Officer. For additional information about the URI, contact the Army G1's Resilience and Risk Reduction Branch at usarmy.pentagon.hqda-dcs-g-1.mbx.urisurvey-acsap@mail.mil.

The Unit Risk Inventory—

- Is an Army-approved Command Climate Survey.
- Is designed for company-level use.
- Screens for high-risk behaviors and attitudes that compromise unit readiness.
- Can be completed in 30 minutes.
- Incurs no cost to installations or units.

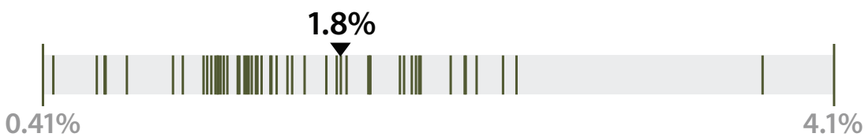


URI Process

Drug Use and Testing

The use of illicit drugs and the abuse of alcohol are inconsistent with the military's standards of conduct and professionalism and can negatively impact the Army mission.

Drug testing is an important tool to assist in the identification and prevention of Soldier drug abuse. AR 600–85 (DA, 2016a) provides applicable guidance for drug testing in the ARNG. Unit commanders randomly select and test 10% of their unit each month, or 25% of their unit each quarter, for illicit substances and alcohol abuse.



Overall, 1.8% of ARNG Soldiers tested positive for illicit drug use.

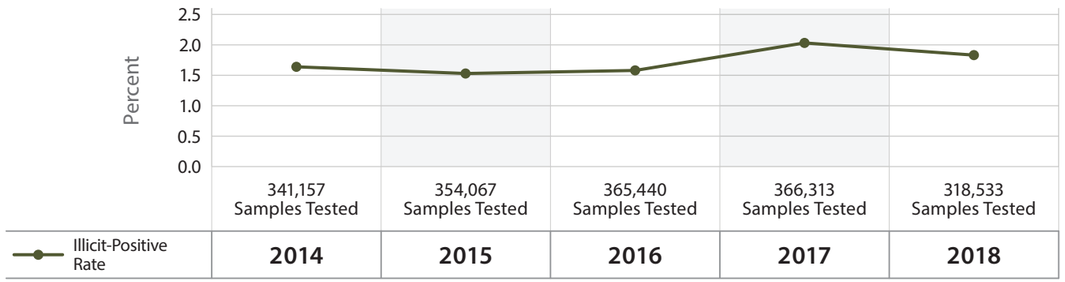
Prevalence ranged from 0.41% to 4.1% across the States/Territories.

In FY18, the ARNG tested more than 320,000 urine specimens for drugs; 1.8% of ARNG Soldiers tested positive for illicit drugs. For comparison, the Army AC illicit-positive drug rate was 1.1%. ARNG Soldiers not on Active Status accounted for the majority of illicit-positive results (99%). The percentage of ARNG Soldiers who tested positive for illicit drugs varied by State/Territory and ranged from 0.41%–4.1%.

States/Territories with the Lowest Rate of Illicit-Positive Drug Results, ARNG Soldiers, FY18

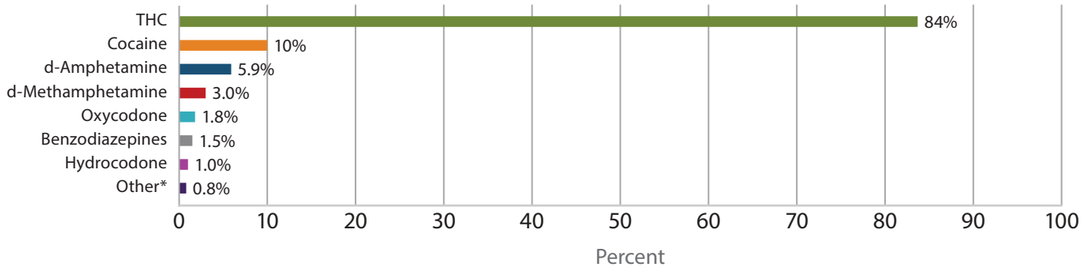
RANK		
1.	North Dakota	0.41%
2.	U.S. Virgin Islands	0.46%
3.	Maryland	0.66%
4.	Montana	0.70%
5.	South Dakota	0.71%

Illicit-Positive Rate, ARNG Soldiers, CY14–18



Percent Illicit-Positive Results by Drug, ARNG Soldiers, FY18

Tetrahydrocannabinol (THC), the main psychoactive ingredient in marijuana, continues to be the most frequently detected illicit drug in ARNG Soldiers, accounting for 84% of all illicit-positive results.



**Other=Heroin, Codeine, Designer Amphetamine, Morphine, Synthetic Cannabinoids, Steroids*

Prevention Resources

The ARNG has increased its drug prevention and testing efforts to reduce illicit-positive rates. The ARNG conducts a 2-hour annual Army Sustance Abuse Program (ASAP) training for TS and a 4-hour annual ASAP training for full-time members. Each State/Territory ASAP makes a list of resources and points of contact available to ARNG Soldiers. Each State/Territory and many individual counties have unique levels of resources available for ARNG Soldier access. The ARNG has also expanded testing and prevention training in Recruit Sustainment Program units to reduce drug use in the high-risk age group of 18–25 years.

Treatment Challenges

TS who test positive for illicit substances during ARNG drug tests are required to undergo a substance abuse assessment and are referred to a State provider. Soldiers who require counseling or treatment must participate at their own expense unless the State/Territory has available resources. Full-time AGR or long-term Active Duty for Operational Support (ADOS) Soldiers in the ARNG have TRICARE insurance and may seek an assessment and any required treatment services through their assigned providers. Full-time ARNG members living within driving distance of an Army medical treatment facilities with a substance abuse program may access that program.

Use the following behavioral health treatment facilities locator for help with substance abuse/addiction and/or mental health: https://www.findtreatment.samhsa.gov/.mil.

Soldiers who need help with a substance abuse problem should contact their local ASAP office.

Hazardous Alcohol Use

Hazardous alcohol use precedes both short- and long-term adverse alcohol-related outcomes. Short-term outcomes include driving under the influence (DUI) charges, sexual contact that increases risk of sexually transmitted infections and unintended/unwanted pregnancy, increased violence, and increased injuries. Long-term hazardous alcohol use can lead to increased risk of high blood pressure, heart disease, stroke, liver disease, and digestive problems; increased risk of certain cancers; behavioral health problems; and social problems, including lost productivity, family problems, and unemployment.

For the 2019 *Health of the ARNG Force* report, alcohol use habits were measured using the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C), a standardized self-reported survey that is part of the Soldier's PHA questionnaire. The AUDIT-C asks Soldiers about the frequency and quantity of their alcohol consumption in order to assess the likelihood that their drinking is adversely affecting their safety. The AUDIT-C is a validated three-item screening tool, scored on a scale of 1–12, that may indicate hazardous alcohol use, which is distinct from an alcohol dependency disorder diagnosis. Soldiers who screen positive on the AUDIT-C may be referred for alcohol education, the ASAP, Army Substance Use Disorder Clinical Care, or similar interventions. An AUDIT-C score of ≥5 in males and ≥4 in females is considered optimal for identifying hazardous drinking or alcohol use disorders in compliance with DOD recommendations.

Overall, 5.7% of ARNG Soldiers were classified as exhibiting hazardous levels of alcohol use.

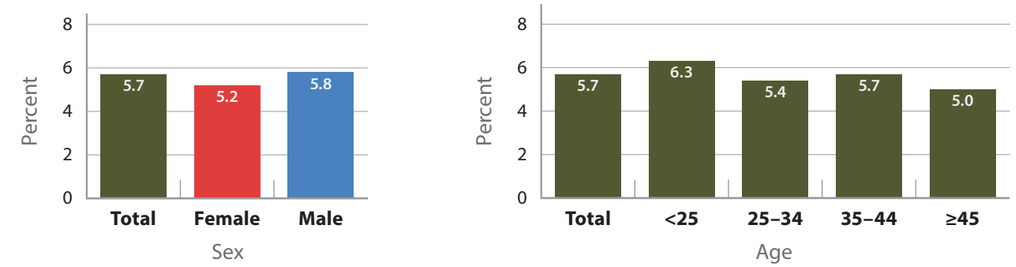
Rates ranged from 1.5% to 16% across the States/Territories.

States/Territories with the Lowest Proportion of ARNG Soldiers Reporting Hazardous Alcohol Use, FY18

RANK		
1.	U.S. Virgin Islands	1.5%
2.	Wisconsin	2.7%
3.	Utah	3.0%
4.	New Jersey	3.2%
5.	Nevada	3.9%

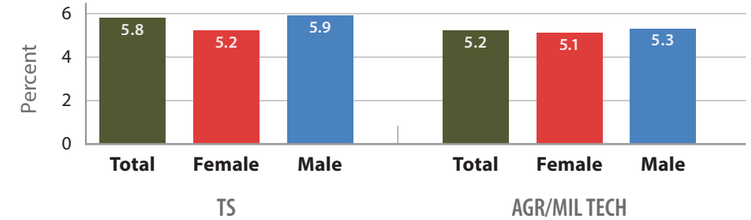
Percent Exhibiting Hazardous Alcohol Use by Sex and Age, ARNG Soldiers, FY18

Among ARNG Soldiers in FY18, a higher proportion of males (5.8%) than females (5.2%) reported hazardous drinking behavior. In FY18, the highest proportion of reported hazardous alcohol use was among Soldiers ages <25 (6.3%), with the lowest proportion of reported hazardous alcohol use among Soldiers aged 45 years or older.



Percent Exhibiting Hazardous Alcohol Use by Soldier Type, ARNG Soldiers, FY18

The percent of ARNG Soldiers who reported hazardous drinking behavior did not differ significantly by Soldier type: 5.8% of TS and 5.2% of AGR/Mil Techs reported behavior consistent with hazardous alcohol use. Within Soldier type, males (TS: 5.9%; AGR/Mil Techs: 5.3%) reported hazardous drinking behavior at a higher proportion than Females (TS: 5.2%; AGR/Mil Techs: 5.1%).



Tobacco Use

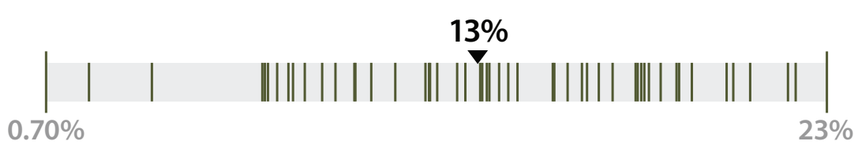
Use of tobacco products negatively impacts Soldier readiness by increasing healthcare costs and the incidence of illness, absenteeism, and premature death (DA, 2015).

A more immediate effect of tobacco use on Soldier health and readiness is a demonstrated increased risk of injury in smokers compared to non-smokers. The relationship between tobacco use and injury may be due to an individual's compromised ability to repair damaged tissues. The PHA, completed annually by Soldiers, contains several self-reported tobacco-related questions (DOD, 2016). Because the PHA is conducted as part of a physical exam which determines an individual's ability to deploy, many Soldiers may not report their tobacco usage to avoid potential negative attention. In addition, nicotine is known to increase alertness, and some Soldiers believe tobacco use enhances their ability to survive in austere environments.

In FY18, 13% of ARNG Soldiers reported smoking and 13% reported using smokeless tobacco. The ARNG saw a slight decrease in smoking (14%) and an increase in using smokeless tobacco (12%) from FY17. The changes in both rates do not represent statistically significant differences.

Overall, 13% of ARNG Soldiers reported smoking tobacco.

Prevalence ranged from 2.8% to 20% across the States/Territories.



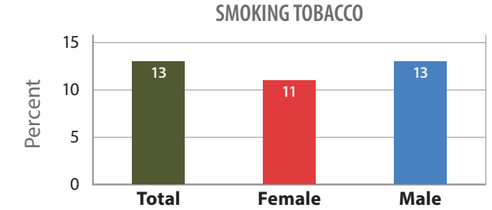
Overall, 13% of ARNG Soldiers reported using smokeless tobacco.

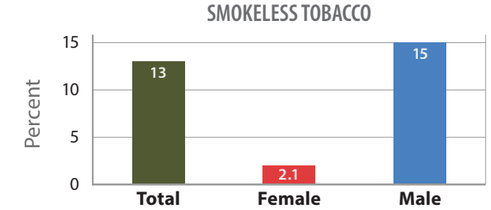
Prevalence ranged from 0.70% to 23% across the States/Territories.

States/Territories with the Lowest Rate of Smoking Tobacco Use, FY18		States/Territories with the Lowest Rate of Smokeless Tobacco Use, FY18	
RANK		RANK	
1. U.S. Virgin Islands	2.8%	1. U.S. Virgin Islands	0.67%
2. Utah	5.0%	2. Puerto Rico	1.9%
3. Nevada	8.4%	3. District of Columbia	3.7%
4. Florida	9.2%	4. California	6.8%
5. District of Columbia	9.5%	5. Connecticut	6.9%

Percent Reporting Tobacco Use by Sex, ARNG Soldiers, FY18

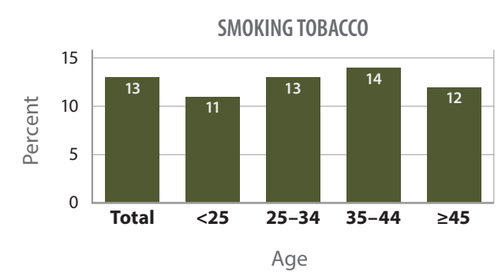
In FY18, there were observable differences in the proportion of ARNG Soldiers' tobacco use by sex, with males reporting higher prevalence of both smoking (13%) and smokeless tobacco (15%) than females (11% and 2.1%, respectively). The difference in ARNG smokeless tobacco use between sexes is mirrored in the civilian population where nearly 7% of males and less than 1% of females report using smokeless tobacco (CDC, 2019). **It is noteworthy that the proportion of male ARNG Soldiers using smokeless tobacco (15%) was twice that of the U.S. male civilian population (~7%) (CDC, 2019).**

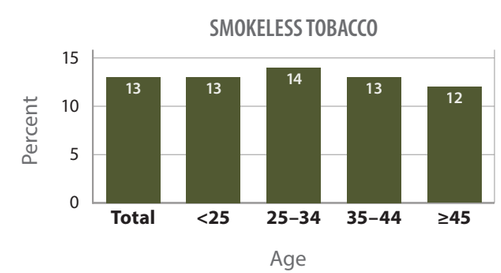




Percent Reporting Tobacco Use by Age, ARNG Soldiers, FY18

The highest proportion of Soldiers reporting smoking tobacco was among Soldiers ages 35–44 years (14%), while the lowest reported smoking tobacco use was among Soldiers age <25 years (11%). The highest proportion of Soldiers reporting smokeless tobacco was among Soldiers ages 25–34 years (14%), while the lowest reported smokeless tobacco use was among Soldiers age 45 years or older (12%).





Obesity and Overweight

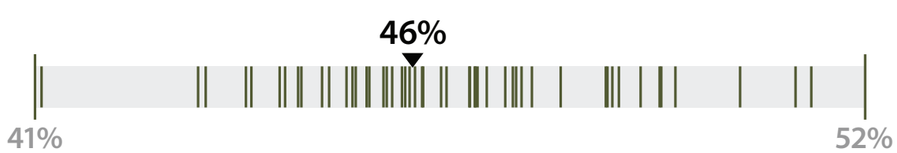
Soldier body composition has a direct influence on the health and readiness of the ARNG Force. Body compositions in the high overweight to obese range can reduce physical functioning and performance, as well as well as Soldier mental and physical well-being and overall quality of life. As citizen Soldiers, ARNG members face a unique challenge in balancing their ARNG duties with the function of everyday civilian life (civilian employment, education, and family life) while still striving to maintain and conform to ARNG body composition standards.

The Centers for Disease Control and Prevention (CDC) categorizes Body Mass Index (BMI) into ranges for normal (less than 25), overweight (at least 25 but less than 30), and obese (30 or above), derived from the general U.S. adult population, to correlate with risk of chronic disease. However, Army studies have demonstrated that up to 20% of Soldiers with BMIs between 25 and 28 (classified as low overweight) are not "overweight" due to excess body fat but rather have increased muscle mass which may be a protective factor against injury. AR 600-9, *The Army Body Composition Program* (ABCP) (DA 2019d), takes this into account and also adjusts height/weight standards for age and sex (e.g., a 40-year old male Soldier can have a BMI of 27.5 and be in compliance). Adjusted BMI cut points are described in "Flagged for Weight" on page 34 of this report.

In FY18, 24% of ARNG Soldiers had a BMI of greater than 30.0 and were thus classified as obese. The proportion of ARNG Soldiers with a BMI in the overweight range was 46% in FY18, a slight increase from the FY17 rate of 45%.

Overall, 24% of ARNG Soldiers were classified as obese.

Rates ranged from 14% to 32% across the States/Territories.



Overall, 46% of ARNG Soldiers were classified as overweight.

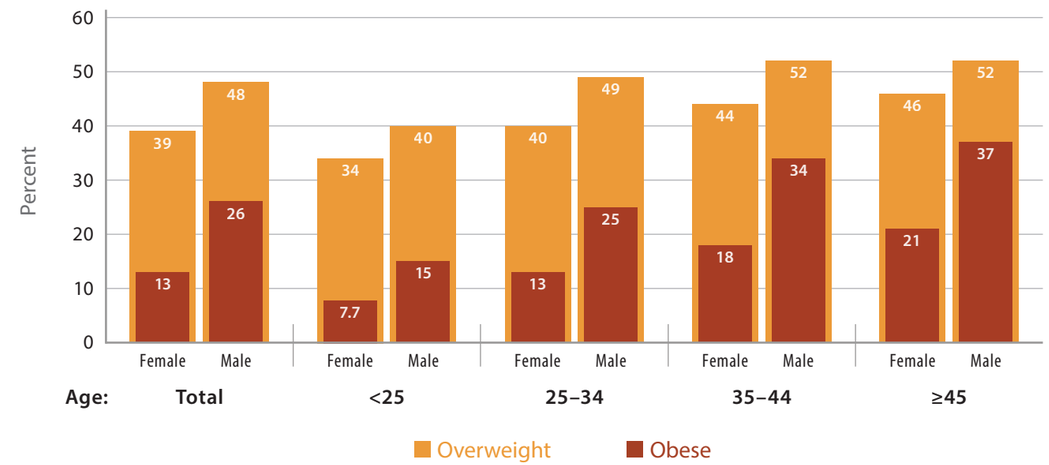
Prevalence ranged from 41% to 52% across the States/Territories.

States/Territories with the Lowest Proportion of Obese Soldiers, ARNG Soldiers, FY18

RANK		
1.	Montana	14%
2.	Wisconsin	15%
3.	District of Columbia	15%
4.	Utah	18%
5.	Minnesota	18%

Percent Obese and Overweight by Sex and Age, ARNG Soldiers, FY18

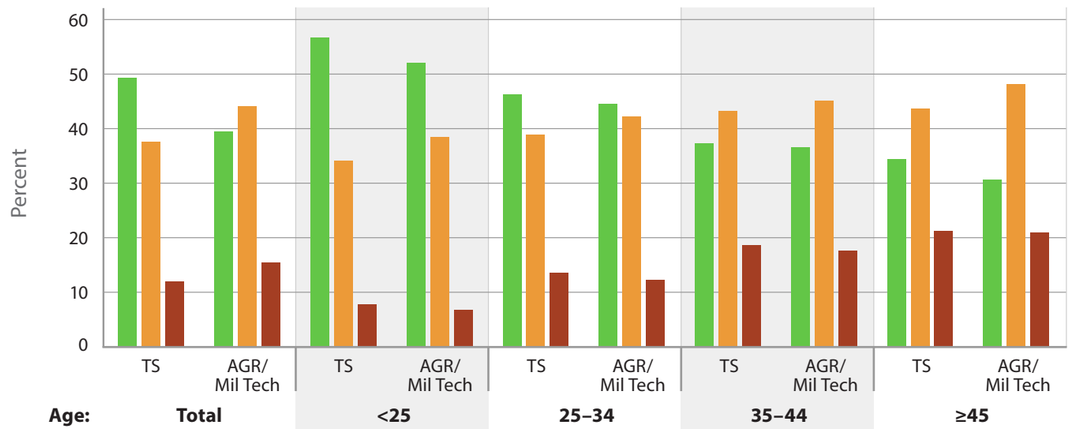
When obesity and overweight were examined by sex among ARNG Soldiers in FY18, males (26% and 48%, respectively) had a consistently higher prevalence of both BMI classifications than females (13% and 39%, respectively) across all age groups.



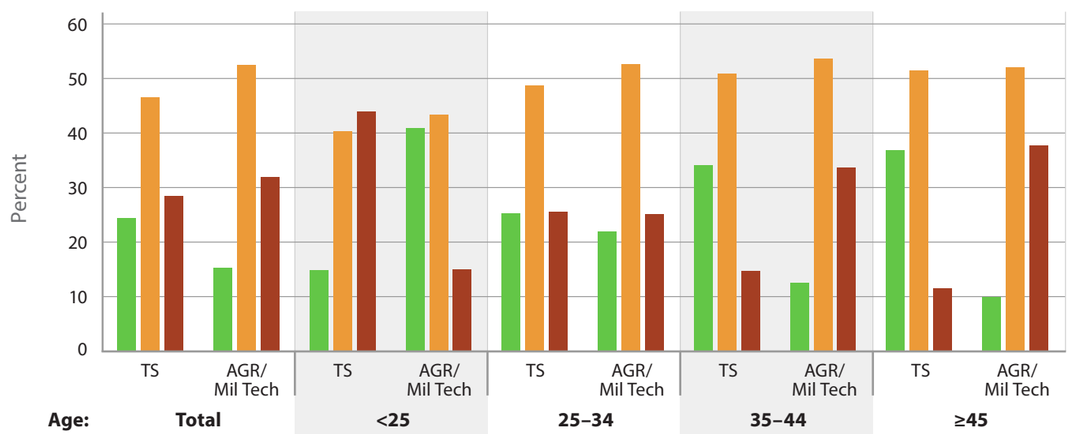
In FY18, the prevalence of obesity and overweight was higher among AGR/Mil Tech Soldiers (32% and 53%, respectively) than TS (24% and 47%, respectively). The proportion of ARNG Soldiers who were overweight and obese did not vary significantly between Traditional and AGR/Mil Tech Soldiers based on age. In both groups, the likelihood of being overweight or obese increased with age. After adjusting for differences in age and sex distributions across these Soldier types, the prevalence of obesity and overweight was similar across all ARNG Soldier groups.

Normal Overweight Obese

Weight Status by Age and Soldier Type, Female ARNG Soldiers, FY18



Weight Status by Age and Soldier Type, Male ARNG Soldiers, FY18



(U.S. Army National Guard Photo by Bo Wriston)

Flagged for Weight

The ABCP, as directed by DODI 1308.3 (DOD, 2002) and AR 600-9, requires Soldiers to be physically fit. According to the ABCP, the maximum allowable body fat threshold is 26% for males and 36% for females (as shown in the BMI Thresholds Table in Appendix I). Following APFT, Soldiers are required to undergo bi-annual anthropometric measurements of height and weight for BMI calculation. When the allowable BMI is exceeded for sex and age group, circumferential measures (known as the "tape test") of the Soldier's neck, waist, and hips are collected to better estimate body composition. A Soldier with a relative body fat percentage that exceeds the maximum allowable sex and age standard is "flagged" and is enrolled in the ABCP on the day he or she is notified of the failure. Once enrolled in the ABCP, Soldiers receive exercise guidance, nutrition counseling, and behavioral modification strategies to assist in aligning their body composition with the Army sex and age standards. The ABCP weighs participating Soldiers monthly, with a goal of losing 3 to 8 pounds or 1% body fat per month until the Army sex and age standards are achieved.

In FY18, 4.9% of ARNG Soldiers were flagged for exceeding their maximal allowable weight, and 24% of ARNG Soldiers were classified as being obese (BMI ≥ 30).

Overall, 4.9% of ARNG Soldiers were flagged for exceeding their maximal allowable weight.

Rates ranged from 1.7% to 8.1% across the States/Territories.

States/Territories with the Lowest Proportion of ARNG Soldiers Flagged for Weight, FY18

RANK		
1.	Puerto Rico	1.7%
2.	Utah	2.4%
3.	Idaho	2.4%
4.	Virginia	2.8%
5.	South Dakota	3.0%

According to AR 600–9, those Soldiers classified as obese had exceeded the maximal allowable weight for their sex and age group and should have been flagged for a body composition measurement. The ultimate decision to flag Soldiers exceeding their maximal allowable weight is at command discretion, which may account for the difference between the proportion of ARNG Soldiers who were flagged for weight and the proportion identified as obese. The ABCP is built on the ideal of consistent bi-annual anthropometric measurements to assist Soldiers in gauging their height, weight, and body fat and ultimately conforming to the Army standards. The potentially inconsistent identification of Soldiers who exceed the maximal allowable threshold may contribute to higher APFT failure rates, more chronic health conditions, and lower overall Soldier readiness.

SPOTLIGHT

INFORMING TOTAL SOLDIER HEALTH THROUGH THE HOLISTIC HEALTH AND FITNESS SYSTEM

With 13% of ARNG Soldiers not able to deploy due to medical non-readiness, improving the health of the individual Soldier is at the foundation of the ARNG's ability to deploy, flight, and win the Nation's wars. Soldier health is multi-faceted and includes much more than traditional physical indicators of well-being. Behavioral health, steadfastness, rest, and nutrition must be optimized and integrated with the physical domain to develop a ready and resilient Soldier. With this objective in mind, the Army has compiled 30 years of research to create the Holistic Health and Fitness (H2F) system. The vision of H2F is to immerse Soldiers in a new culture that sustains their health readiness and enables them to meet current and future mission needs throughout their Army careers.

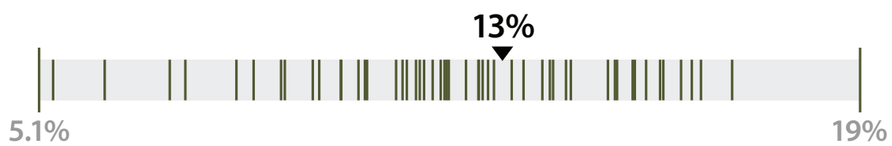
H2F is a comprehensive, integrated, and immersive health and fitness system that increases the lethality of Soldiers who are ready to engage with and overmatch the enemy in multi-domain operations. The system accomplishes this by addressing physical readiness and mental toughness components and measuring the effectiveness of applicable programs and interventions. The physical and non-physical components of fitness are shaped by policy, doctrine, performance experts, programs, facilities, and education. As a system, these elements (often absent from—or out of synch with—legacy fitness programs) are aimed to comprehensively support the physical, mental, and other aspects of Soldier readiness.

The implementation of H2F aims to positively impact overall physical fitness, medical readiness, and unit cohesion and morale; and reduce the number of indiscipline events and ABCP enrollments. Collectively, the H2F system will better position the ARNG to accomplish both combat and local deployment tasks by supporting the holistic health and fitness of its Soldiers.

Army Physical Fitness Test Failures

Physical fitness is one of the cornerstones of military service and Soldier readiness. Soldiers must possess a high level of physical fitness and endurance in order to perform physically demanding tasks in both garrison and deployment conditions. ARNG Soldiers face a unique challenge in maintaining and improving their physical fitness while balancing the demands of everyday civilian life. The APFT is designed to assess Soldiers' muscular strength, endurance, and cardiorespiratory fitness. The current APFT assesses Soldiers performance in three events: 2 minutes of push-ups, 2 minutes of sit-ups, and a 2-mile run. The APFT is age- and sex-adjusted and is scored within a range of 0 to 100 per event. To pass the APFT, a minimum score of 60 is required for each event.

In FY18, 13% of ARNG Soldiers failed the APFT, a slight increase from the FY17 rate of 12%. The FY18 APFT failure rates varied by State/Territory, ranging from 5.1% to 19%.



Overall, 13% of ARNG Soldiers failed the Army Physical Fitness Test.

Rates ranged from 5.1% to 19% across the States/Territories.

States/Territories with the Lowest Proportion of ARNG Soldiers who Failed the APFT, FY18

RANK		
1.	Utah	5.1%
2.	Puerto Rico	5.3%
3.	Idaho	6.2%
4.	Colorado	7.3%
5.	South Dakota	7.6%

SPOTLIGHT

DEVELOPING THE 21ST CENTURY SOLDIER:
THE ARMY COMBAT FITNESS TEST

To prepare Soldiers for emerging challenges on and off the battlefield, the U.S. Army is currently field testing a new type of Army physical fitness test, the Army Combat Fitness Test (ACFT), which takes into account the unique physical demands of the unit and/or individual's Military Occupational Specialty (MOS) and is designed to be age and gender neutral.

The ACFT's intended purpose is to—

- Improve individual Soldier readiness.
- Transform the culture of Army fitness.
- Reduce preventable injuries and attrition.
- Enhance mental toughness and stamina.
- Contribute to increased unit readiness.

The ACFT was developed based on the results of the *Baseline Soldier Physical Readiness Requirements and Physical Demands Study*, where the Army researched the baseline physical-readiness requirements of the high-physical-demand tasks Soldiers perform in combat. ACFT development was informed by military fitness leaders from partner nations as well as domestic experts from the Department of Physical Education, U.S. Military Academy; the U.S. Army Research Institute of Environmental Medicine; the U.S. Army Public Health Center; and the U.S. Army Physical Fitness School.

The ACFT consists of six events performed consecutively, with a short rest period between each. The ACFT is scored on a 0- to 100-point range per event; three scoring threshold categories are determined by the physical demands of the unit or the individual's MOS.

While the ACFT is supported by scientific research, there are still several details to be finalized based on current field testing across the Army AC and the ARNG. The ACFT is being field tested in eight battalion-sized ARNG units across eight States. Among these units, the first of two requisite not-for-record ACFTs has been completed; the second is scheduled for later in FY20. During initial ACFT field testing, "Pass" rates have varied from 23% to 70% depending on the MOS-specific scoring thresholds. The ARNG is currently preparing for uniform adoption of the ACFT in FY20 in all States/Territories. The ACFT will become the Army's physical fitness test of record by October 2020.

Compared to the existing APFT, the ACFT better mirrors the high-physical-demand tasks Soldiers are expected to perform in combat. Performing well on the ACFT is a key indicator of a Soldier's ability to meet the physical demands faced in deployment and combat.

ARMY COMBAT FITNESS TEST EVENTS

Hypertension

Hypertension, or high blood pressure, usually has no warning signs or symptoms. As a result, many people do not realize they have hypertension until they undergo a blood pressure screening. High blood pressure can greatly diminish health and increase one's risk for heart disease, stroke, and premature death. Several unhealthy behaviors, including tobacco use, eating foods high in sodium and low in potassium, insufficient physical activity, excessive weight, and excessive alcohol consumption can increase risk for developing hypertension. Cardiovascular health is a key component of a Soldier's holistic health and is an ARNG priority for overall Soldier health and readiness. One area that shows the ARNG's dedication to overall cardiovascular health is the APFT. Another is measuring blood pressure—a quick, painless, standard diagnostic screening that all Soldiers undergo during their annual PHA physical exam. Strategies for keeping blood pressure levels in a healthy range (<120/<80) usually involve reducing dietary sodium, engaging in daily physical activity, quitting smoking, and potentially taking medication.

Overall, 6.0% of ARNG Soldiers were flagged for hypertension based on physician determination during a PHA physical exam.

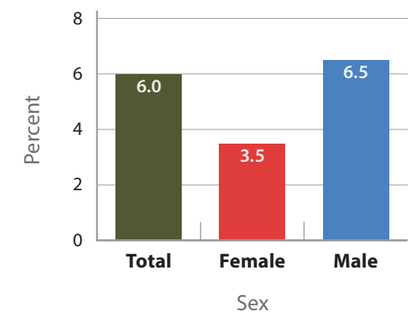
Prevalence ranged from 3.3% to 11% across the States/Territories.

States/Territories with the Lowest Rate of Hypertension, FY18

RANK		
1.	Illinois	3.3%
2.	Minnesota	3.4%
3.	Iowa	3.5%
4.	Nevada	3.7%
5.	District of Columbia	3.7%

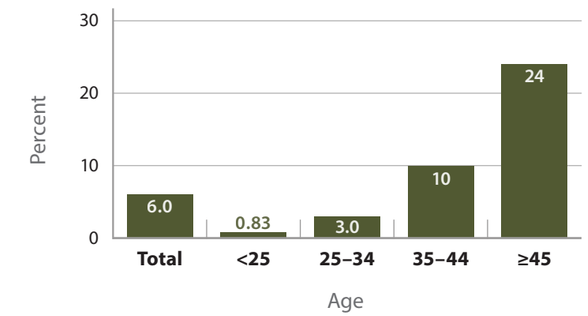
Percent with Hypertension by Sex, ARNG Soldiers, FY18

In FY18, 6.0% of ARNG Soldiers were flagged for hypertension. The prevalence of hypertension was nearly twice as high in males (6.5%) than females (3.5%).



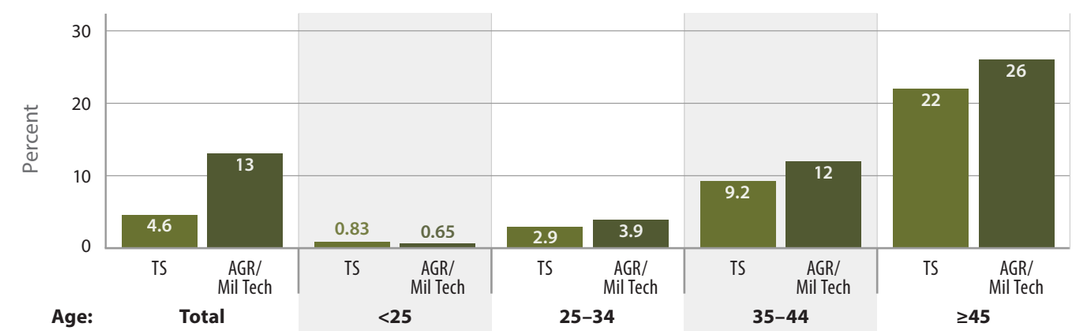
Percent with Hypertension by Age, ARNG Soldiers, FY18

As Soldier age increases, so does the prevalence of hypertension. The lowest prevalence of hypertension is among Soldiers under 25 years of age (0.83%), and the highest prevalence was found among Soldiers aged 45 years and older (24%).

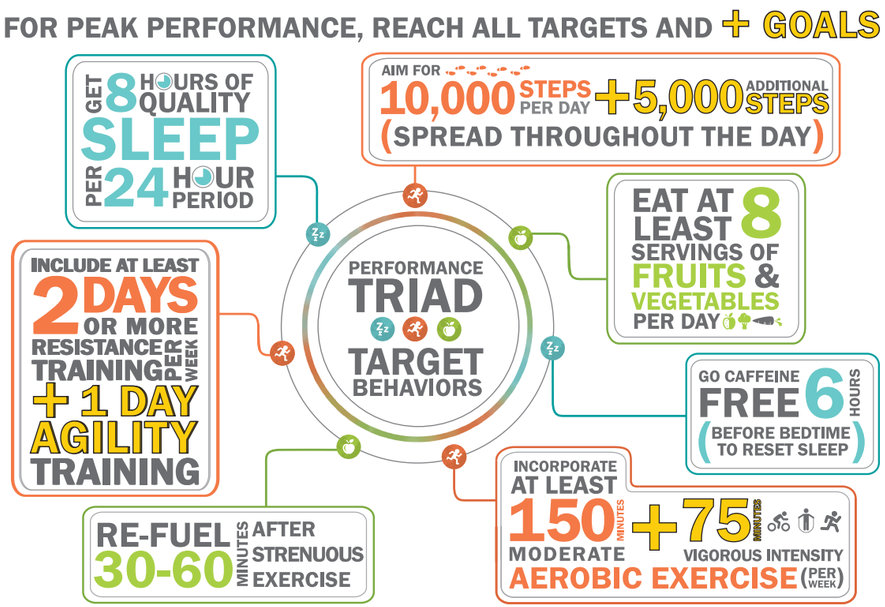


Percent with Hypertension by Soldier Type and Age, FY18

The prevalence of hypertension was almost three times higher among AGR/Mil Tech Soldiers (13%) than TS (4.6%). One factor that may be influencing this relationship is the difference in the age distribution of AGR/Mil Tech Soldiers versus TS: the mean age of an AGR/Mil Tech Soldier is 10 years older than that of the TS.



Performance Triad



Sleep, Activity, and Nutrition

Sleep, activity, and nutrition (SAN), the key components of the Performance Triad (P3), form the foundation of optimal physical, behavioral, and emotional health. Working toward established SAN targets and understanding the interrelationships between SAN elements are critical for maximizing Soldier performance. Neglect of any single SAN domain can lead to suboptimal performance and have a dramatic negative impact on readiness, recruitment, retention, and Soldier health (DA, 2016b). To address SAN deficiencies, Leaders and Soldiers need information about the targets on which they fall short.

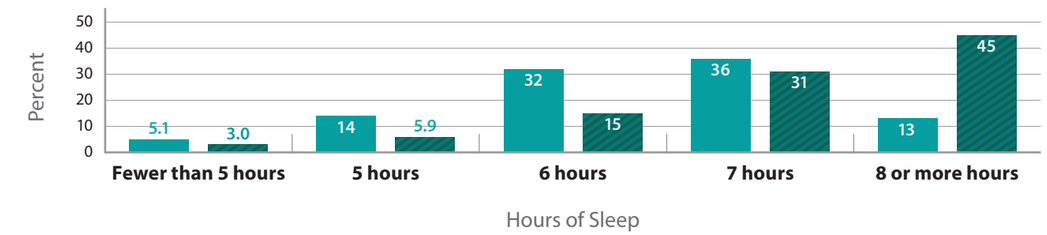
The Global Assessment Tool (GAT) is a survey designed to assess an individual's behaviors with regard to SAN, among other domains. Soldiers are required to complete the GAT per AR 350-53 (DA, 2014). The data presented here represent the proportions of ARNG GAT respondents who met established targets.

Sleep

The CDC (CDC, 2018a) and the National Sleep Foundation (NSF, 2018) both recommend adults attain 7 or more hours of sleep per night.

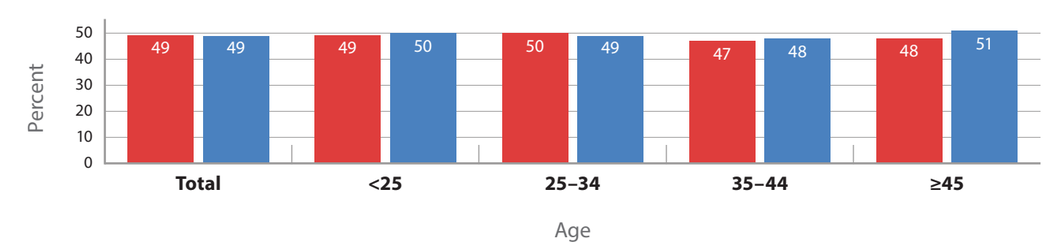
Estimated Hours of Sleep by Duty Status, ARNG Soldiers, CY18

Most Soldiers reported sleeping 6 to 7 hours per night, regardless of duty status. However, nearly 1 in 3 reported getting fewer than 6 hours of sleep on weeknights. Soldiers also reported getting more sleep on weekend nights compared to weeknights.



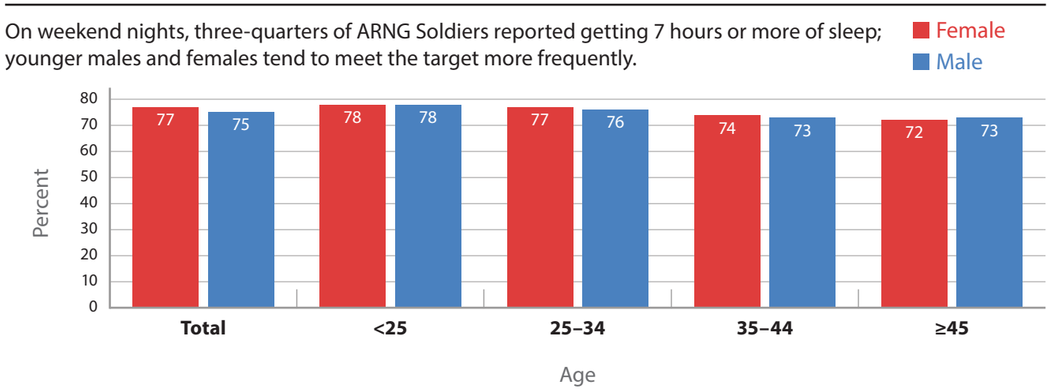
Percent Meeting Weeknight Sleep Target by Sex and Age, ARNG Soldiers, CY18

On weeknights, just under half of ARNG Soldiers reported getting 7 hours or more of sleep per night; rates are similar across sex and age groups.



Percent Meeting Weekend Night Sleep Target by Sex and Age, ARNG Soldiers, CY18

On weekend nights, three-quarters of ARNG Soldiers reported getting 7 hours or more of sleep; younger males and females tend to meet the target more frequently.

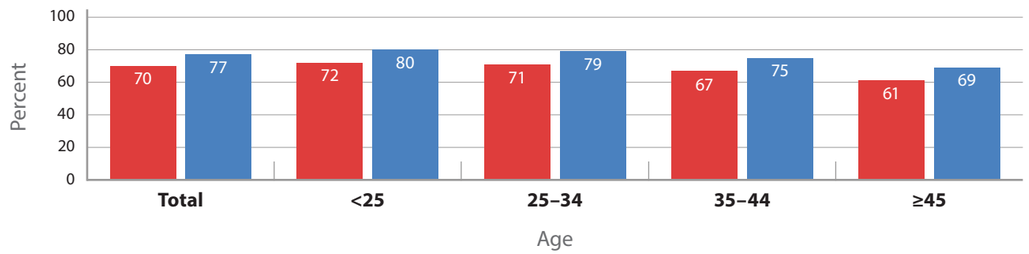


Activity

There are two activity recommendations from the CDC (CDC, 2018b). The first of the CDC's two activity recommendations is attaining 2 or more days of resistance training per week.

Percent Meeting Resistance Training Target by Sex and Age, ARNG Soldiers, CY18

Three-quarters of ARNG Soldiers reported engaging in resistance training on 2 or more days of the week. Target attainment varied by sex and age groups: 80% of males under 25 reported adequate resistance training whereas 61% of females over 45 met the target.



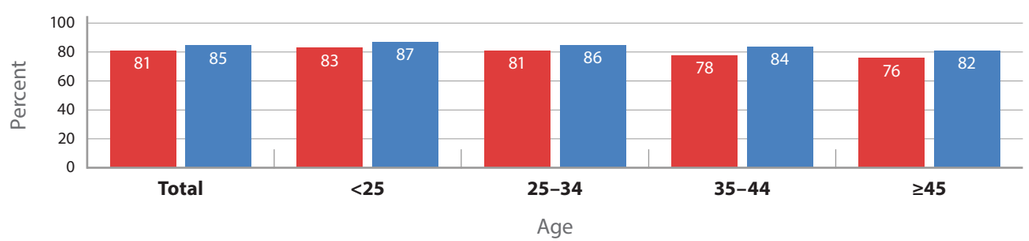
Activity

The second CDC activity recommendation is adequate aerobic activity. The recommended amount of this activity can be attained in three ways:

- 150 minutes/week of moderate-intensity aerobic activity, or
- 75 minutes/week of vigorous-intensity aerobic activity, or
- An equivalent combination of moderate- and vigorous-intensity aerobic activity.

Percent Meeting Aerobic Activity Target by Sex and Age, ARNG Soldiers, CY18

Nearly 85% of ARNG Soldiers reported attaining adequate aerobic activity. Overall, females met the target less frequently than their male counterparts.

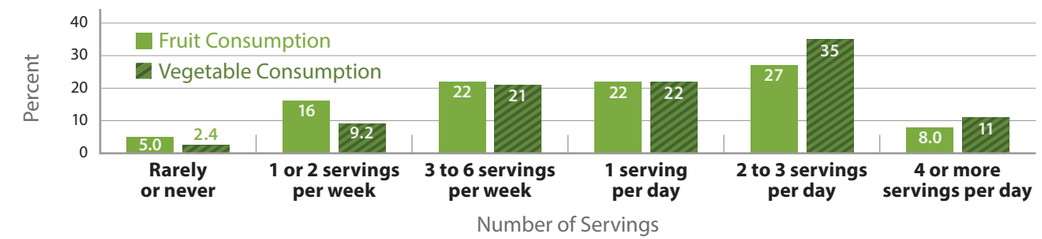


Nutrition

Nutrition targets are based on U.S. Department of Agriculture MyPlate recommendations (USDA, 2018). The GAT, which defines a serving slightly differently than MyPlate, asks Soldiers to report the approximate servings of fruits and vegetables they consume each week. Nutrition targets are defined as eating two or more servings of fruits and two or more servings of vegetables per day. On average, Soldiers reported consuming more servings of vegetables than fruits.

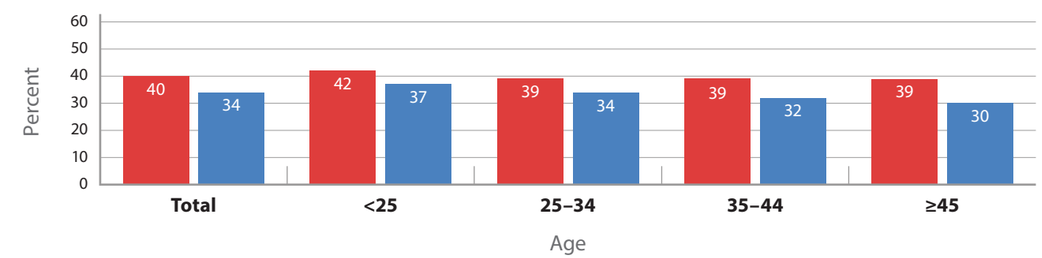
Estimated Fruit and Vegetable Consumption per Week, ARNG Soldiers, CY18

Most Soldiers reported fruit consumption ranging from a few servings per week to a few servings per day. Vegetable consumption was higher; more Soldiers reported consuming multiple servings per day.



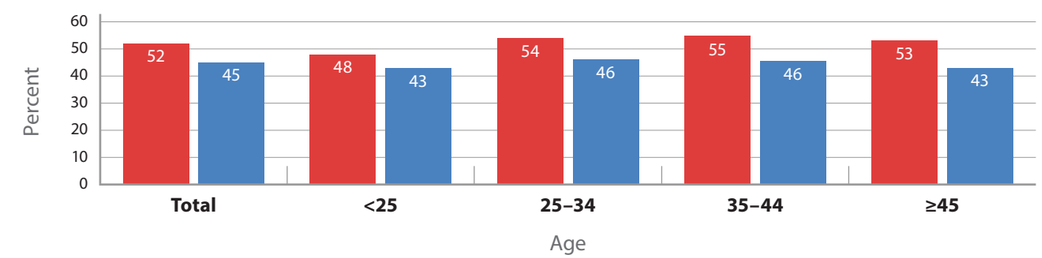
Percent Meeting Fruit Consumption Target by Sex and Age, ARNG Soldiers, CY18

Approximately one-third of ARNG Soldiers reported eating two or more servings of fruit per day. A higher proportion of females met the fruit target than males.



Percent Meeting Vegetable Consumption Target by Sex and Age, ARNG Soldiers, CY18

Just under half of ARNG Soldiers reported eating two or more servings of vegetables per day. A higher proportion of females met the vegetable target than males.



Percent Meeting SAN Targets, ARNG Soldiers, 2018:

49% attained 7 or more hours of sleep on weeknights.

76% attained 7 or more hours of sleep on weekend nights.

76% engaged in resistance training 2 or more days per week.

84% achieved adequate moderate and/or vigorous aerobic activity targets.

35% ate 2 or more servings of fruits per day.

46% ate 2 or more servings of vegetables per day.

ARNG Health Index Ranking by State and Territory

ARNG Health Index Scores take into account measures of Medical Readiness, Dental Readiness, Hearing Readiness, PTSD, Depression, Illicit Substance Use, Hazardous Alcohol Use, Tobacco Use, Obesity, APFT Failures, and Hypertension.

1. **Utah**
2. **Rhode Island**
3. **U.S. Virgin Islands**
4. **District of Columbia**
5. **California**
6. **Nevada**
7. **South Dakota**
8. **Wisconsin**
9. **Montana**
10. **Puerto Rico**
11. **New Jersey**
12. **Colorado**
13. **Arizona**
14. **Connecticut**
15. **Idaho**
16. **Ohio**
17. **Wyoming**
18. **Alaska**
19. **Maryland**
20. **New York**
21. **Virginia**
22. **Florida**
23. **Iowa**
24. **Pennsylvania**
25. **Nebraska**
26. **Missouri**
27. **Mississippi**
28. **Vermont**
29. **Delaware**
30. **Hawaii**
31. **North Dakota**
32. **Maine**
33. **Kentucky**
34. **North Carolina**
35. **Texas**
36. **Massachusetts**
37. **New Hampshire**
38. **Minnesota**
39. **Illinois**
40. **Kansas**
41. **West Virginia**
42. **Tennessee**
43. **Washington**
44. **Indiana**
45. **Michigan**
46. **South Carolina**
47. **New Mexico**
48. **Georgia**
49. **Alabama**
50. **Oregon**
51. **Arkansas**
52. **Oklahoma**
53. **Louisiana**
54. **Guam**

Alabama

Army National Guard

Profile (2018)*

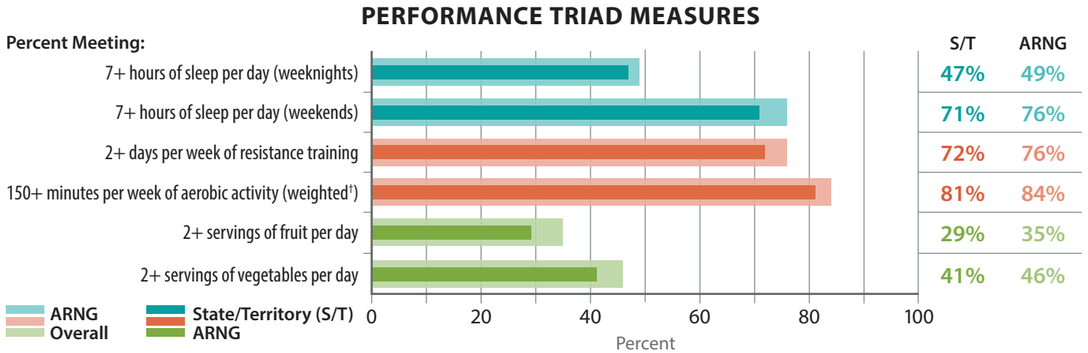
End-Strength: 10,000 (19% Female) **AGR/Mil Tech:** 17%
State Population: 4,900,000 (2.1 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 49 / 54
Change in Ranking from FY17: DOWN 20

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	89	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	12	6.1	2.4–12
PTSD (% with self-reported symptoms)	6.1	5.1	2.7–11
Depression (% with self-reported symptoms)	4.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.8	1.8	0.41–4.1
Hazardous alcohol use (%)	5.2	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	15	13	0.7–23
Obesity (%)	24	24	14–32
Flagged for weight (%)	3.4	4.9	1.7–8.1
APFT failure (%)	14	13	5.1–19
Hypertension (%)	10	6.0	3.3–11

ARNG Health Index Score*** **<10th percentile**

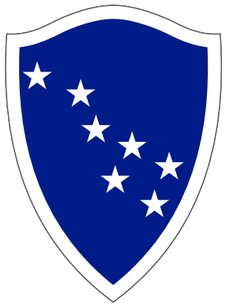
PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
***The Health Index Score is a composite of all listed measures in relation to the ARNG averages; percentile ranges represent where a State/Territory ranks (higher percentiles reflect better ranking installations).
† Please see page 42 for a description of the aerobic activity target.

Alaska

Army National Guard



Profile (2018)*

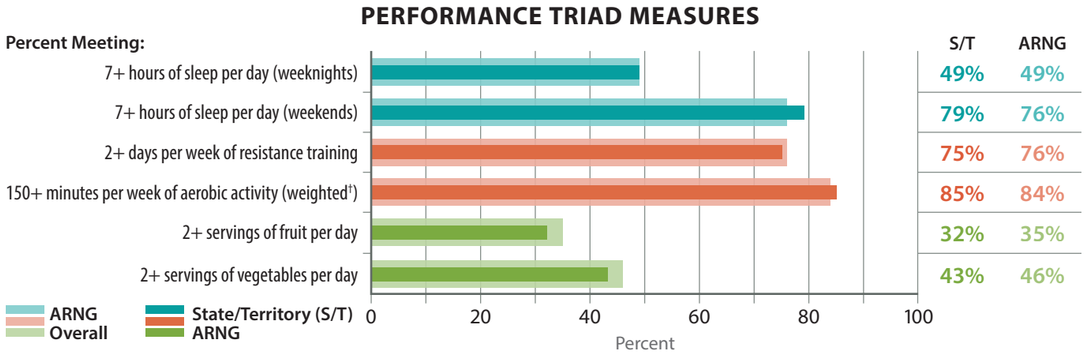
End-Strength: 1,600 (17% Female) **AGR/Mil Tech:** 38%
State Population: 740,000 (2.2 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 18 / 54
Change in Ranking from FY17: UP 17

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	89	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	6.4	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.0	5.1	2.7–11
Depression (% with self-reported symptoms)	4.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.4	1.8	0.41–4.1
Hazardous alcohol use (%)	5.0	5.7	1.5–16
Smoking tobacco use (%)	12	13	2.8–20
Smokeless tobacco use (%)	18	13	0.7–23
Obesity (%)	20	24	14–32
Flagged for weight (%)	4.5	4.9	1.7–8.1
APFT failure (%)	8.8	13	5.1–19
Hypertension (%)	8.2	6.0	3.3–11

ARNG Health Index Score*** **60–69th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
***The Health Index Score is a composite of all listed measures in relation to the ARNG averages; percentile ranges represent where a State/Territory ranks (higher percentiles reflect better ranking installations).
† Please see page 42 for a description of the aerobic activity target.

Arizona

Army National Guard

Profile (2018)*

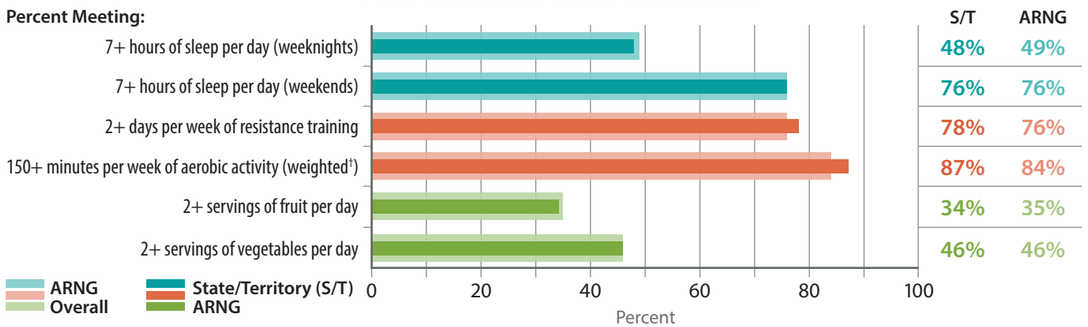
End-Strength: 5,200 (19% Female) **AGR/Mil Tech:** 17%
State Population: 7,200,000 (0.7 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 13 / 54
Change in Ranking from FY17: NO CHANGE

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	85	88	77–94
Dental readiness classification (% ready)	91	94	87–97
Hearing (% with significant threshold shift)	6.3	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.4	5.1	2.7–11
Depression (% with self-reported symptoms)	4.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.2	1.8	0.41–4.1
Hazardous alcohol use (%)	5.8	5.7	1.5–16
Smoking tobacco use (%)	9.9	13	2.8–20
Smokeless tobacco use (%)	11	13	0.7–23
Obesity (%)	20	24	14–32
Flagged for weight (%)	3.3	4.9	1.7–8.1
APFT failure (%)	11	13	5.1–19
Hypertension (%)	4.5	6.0	3.3–11

ARNG Health Index Score*** **70–79th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
***The Health Index Score is a composite of all listed measures in relation to the ARNG averages; percentile ranges represent where a State/Territory ranks (higher percentiles reflect better ranking installations).
† Please see page 42 for a description of the aerobic activity target.

Arkansas

Army National Guard

Profile (2018)*

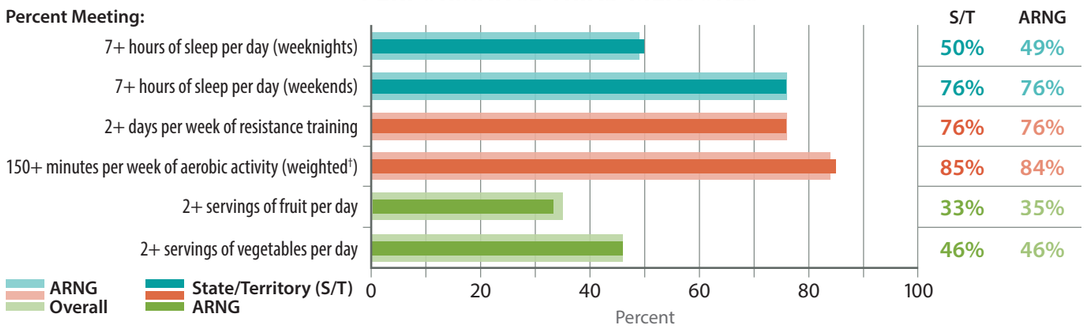
End-Strength: 6,600 (16% Female) **AGR/Mil Tech:** 15%
State Population: 3,000,000 (2.2 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 51 / 54
Change in Ranking from FY17: DOWN 3

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	90	88	77–94
Dental readiness classification (% ready)	97	94	87–97
Hearing (% with significant threshold shift)	6.9	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.1	5.1	2.7–11
Depression (% with self-reported symptoms)	4.0	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.5	1.8	0.41–4.1
Hazardous alcohol use (%)	6.3	5.7	1.5–16
Smoking tobacco use (%)	16	13	2.8–20
Smokeless tobacco use (%)	16	13	0.7–23
Obesity (%)	26	24	14–32
Flagged for weight (%)	5.7	4.9	1.7–8.1
APFT failure (%)	15	13	5.1–19
Hypertension (%)	6.9	6.0	3.3–11

ARNG Health Index Score*** **<10th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

California

Army National Guard

Profile (2018)*

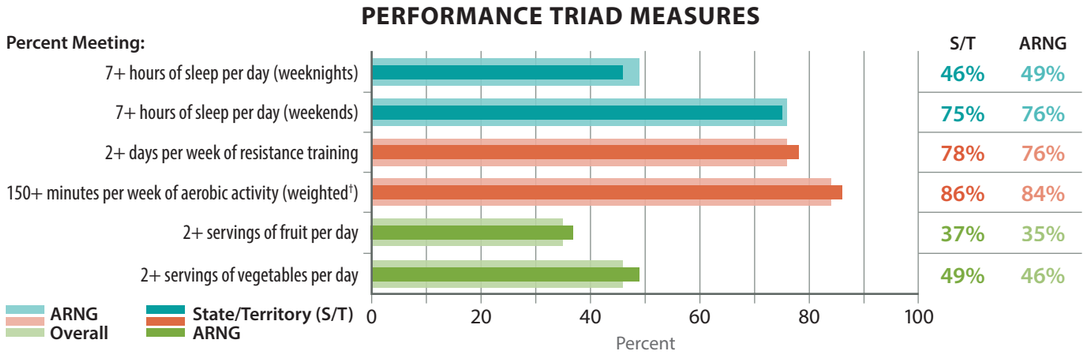
End-Strength: 13,000 (17% Female) **AGR/Mil Tech:** 17%
State Population: 40,000,000 (0.3 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 5 / 54
Change in Ranking from FY17: UP 37

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	82	88	77–94
Dental readiness classification (% ready)	88	94	87–97
Hearing (% with significant threshold shift)	5.8	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.0	5.1	2.7–11
Depression (% with self-reported symptoms)	3.7	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.5	1.8	0.41–4.1
Hazardous alcohol use (%)	4.2	5.7	1.5–16
Smoking tobacco use (%)	9.5	13	2.8–20
Smokeless tobacco use (%)	6.8	13	0.7–23
Obesity (%)	27	24	14–32
Flagged for weight (%)	4.0	4.9	1.7–8.1
APFT failure (%)	9.2	13	5.1–19
Hypertension (%)	4.9	6.0	3.3–11

ARNG Health Index Score*** **≥90th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Colorado

Army National Guard

Profile (2018)*

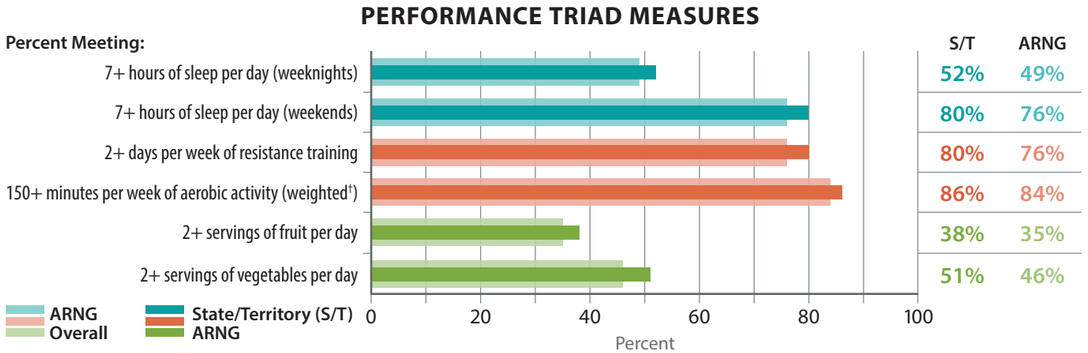
End-Strength: 3,800 (17% Female) **AGR/Mil Tech:** 21%
State Population: 5,700,000 (0.7 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 12 / 54
Change in Ranking from FY17: UP 4

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	86	88	77–94
Dental readiness classification (% ready)	95	94	87–97
Hearing (% with significant threshold shift)	5.5	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.8	5.1	2.7–11
Depression (% with self-reported symptoms)	3.9	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.4	1.8	0.41–4.1
Hazardous alcohol use (%)	5.0	5.7	1.5–16
Smoking tobacco use (%)	10	13	2.8–20
Smokeless tobacco use (%)	14	13	0.7–23
Obesity (%)	18	24	14–32
Flagged for weight (%)	3.0	4.9	1.7–8.1
APFT failure (%)	7.3	13	5.1–19
Hypertension (%)	6.2	6.0	3.3–11

ARNG Health Index Score*** **70–79th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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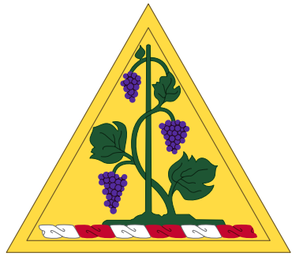
† Please see page 42 for a description of the aerobic activity target.

Connecticut
Army National Guard



Profile (2018)*

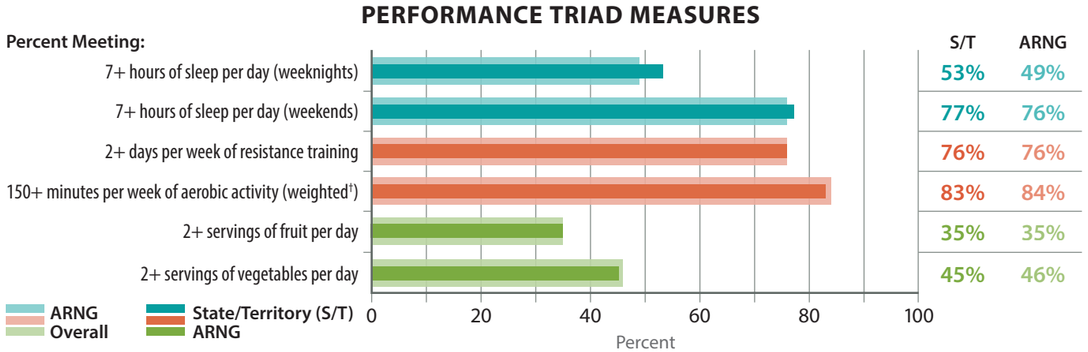
End-Strength: 3,500 (18% Female) **AGR/Mil Tech:** 22%
State Population: 3,600,000 (1.0 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 14 / 54
Change in Ranking from FY17: DOWN 7

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	89	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	4.0	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.0	5.1	2.7–11
Depression (% with self-reported symptoms)	3.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.3	1.8	0.41–4.1
Hazardous alcohol use (%)	4.1	5.7	1.5–16
Smoking tobacco use (%)	10	13	2.8–20
Smokeless tobacco use (%)	6.9	13	0.7–23
Obesity (%)	22	24	14–32
Flagged for weight (%)	6.4	4.9	1.7–8.1
APFT failure (%)	12	13	5.1–19
Hypertension (%)	4.2	6.0	3.3–11

ARNG Health Index Score*** **70–79th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Delaware
Army National Guard

Profile (2018)*

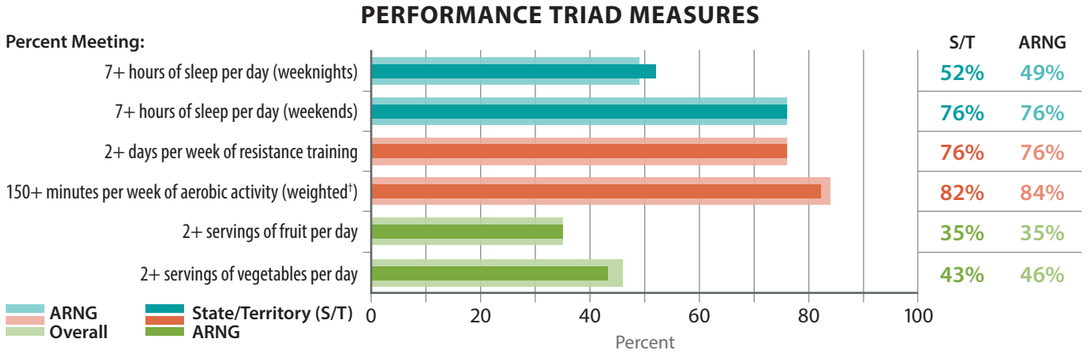
End-Strength: 1,500 (21% Female) **AGR/Mil Tech:** 23%
State Population: 970,000 (1.6 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 29 / 54
Change in Ranking from FY17: UP 3

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	90	88	77–94
Dental readiness classification (% ready)	95	94	87–97
Hearing (% with significant threshold shift)	5.4	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.1	5.1	2.7–11
Depression (% with self-reported symptoms)	3.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.6	1.8	0.41–4.1
Hazardous alcohol use (%)	4.1	5.7	1.5–16
Smoking tobacco use (%)	11	13	2.8–20
Smokeless tobacco use (%)	7.6	13	0.7–23
Obesity (%)	26	24	14–32
Flagged for weight (%)	4.8	4.9	1.7–8.1
APFT failure (%)	14	13	5.1–19
Hypertension (%)	9.9	6.0	3.3–11

ARNG Health Index Score*** **40–49th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

District of Columbia

Army National Guard

Profile (2018)*

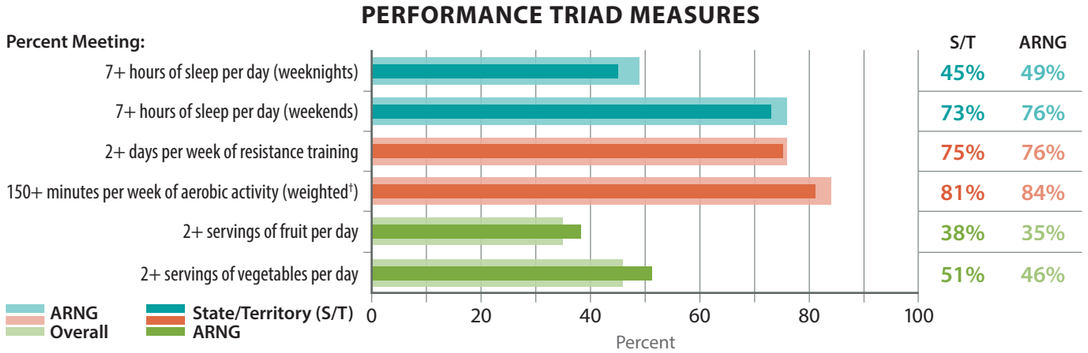
End-Strength: 1,300 (29% Female) **AGR/Mil Tech:** 22%
State Population: 700,000 (1.8 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 4 / 54
Change in Ranking from FY17: UP 19

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	86	88	77–94
Dental readiness classification (% ready)	91	94	87–97
Hearing (% with significant threshold shift)	5.1	6.1	2.4–12
PTSD (% with self-reported symptoms)	3.7	5.1	2.7–11
Depression (% with self-reported symptoms)	2.8	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.4	1.8	0.41–4.1
Hazardous alcohol use (%)	5.1	5.7	1.5–16
Smoking tobacco use (%)	9.5	13	2.8–20
Smokeless tobacco use (%)	3.7	13	0.7–23
Obesity (%)	15	24	14–32
Flagged for weight (%)	4.0	4.9	1.7–8.1
APFT failure (%)	14	13	5.1–19
Hypertension (%)	3.7	6.0	3.3–11

ARNG Health Index Score*** **≥90th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Florida

Army National Guard

Profile (2018)*

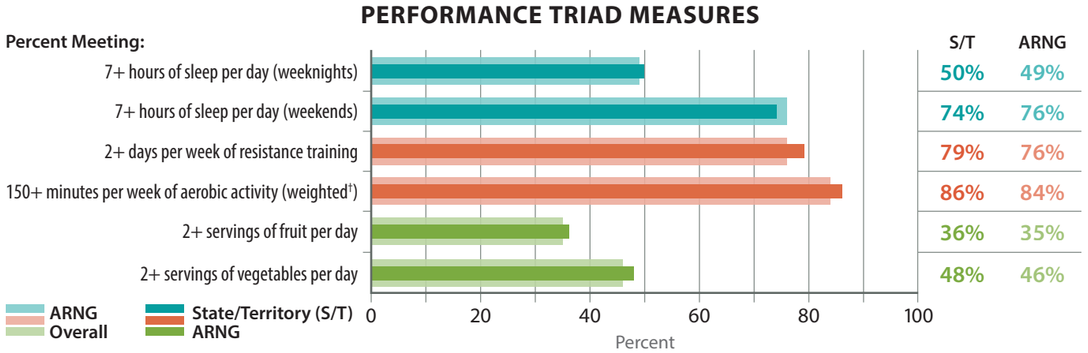
End-Strength: 9,300 (17% Female) **AGR/Mil Tech:** 15%
State Population: 21,000,000 (0.4 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 22 / 54
Change in Ranking from FY17: DOWN 11

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	87	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	9.8	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.7	5.1	2.7–11
Depression (% with self-reported symptoms)	3.7	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.3	1.8	0.41–4.1
Hazardous alcohol use (%)	4.6	5.7	1.5–16
Smoking tobacco use (%)	9.2	13	2.8–20
Smokeless tobacco use (%)	10	13	0.7–23
Obesity (%)	24	24	14–32
Flagged for weight (%)	3.4	4.9	1.7–8.1
APFT failure (%)	12	13	5.1–19
Hypertension (%)	6.5	6.0	3.3–11

ARNG Health Index Score*** **50–59th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Georgia

Army National Guard

Profile (2018)*

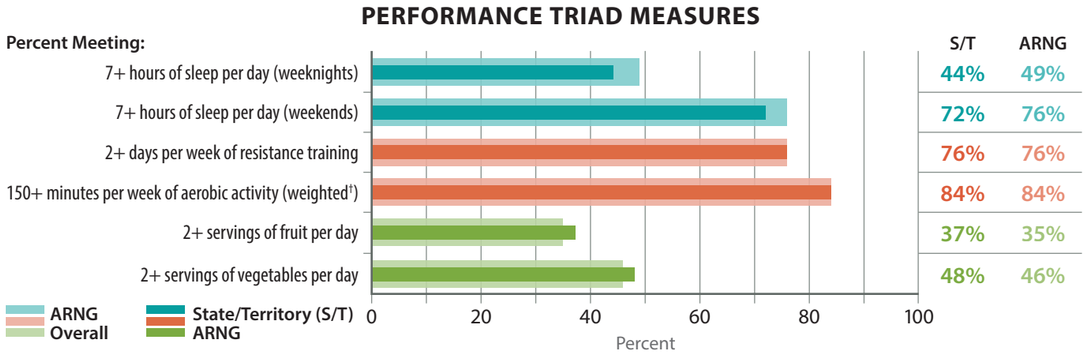
End-Strength: 11,000 (23% Female) **AGR/Mil Tech:** 12%
State Population: 11,000,000 (1.1 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 48 / 54
Change in Ranking from FY17: UP 1

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	84	88	77–94
Dental readiness classification (% ready)	90	94	87–97
Hearing (% with significant threshold shift)	6.5	6.1	2.4–12
PTSD (% with self-reported symptoms)	7.2	5.1	2.7–11
Depression (% with self-reported symptoms)	5.6	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.6	1.8	0.41–4.1
Hazardous alcohol use (%)	6.4	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	12	13	0.7–23
Obesity (%)	24	24	14–32
Flagged for weight (%)	4.0	4.9	1.7–8.1
APFT failure (%)	14	13	5.1–19
Hypertension (%)	6.9	6.0	3.3–11

ARNG Health Index Score*** **10–19th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Guam

Army National Guard

Profile (2018)*

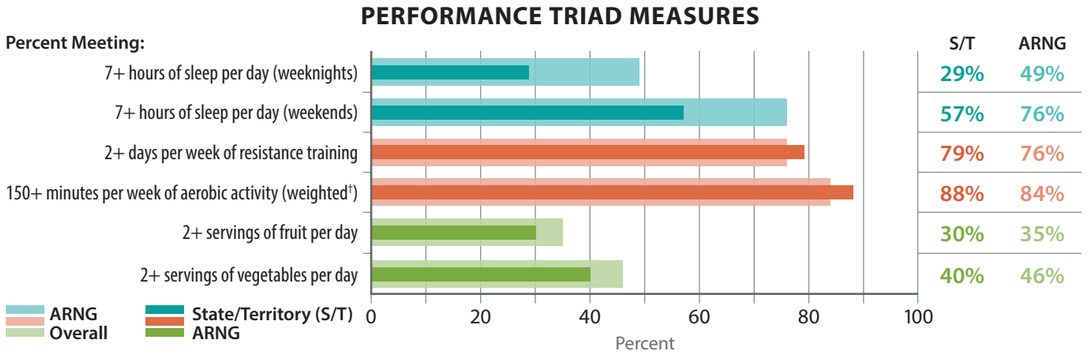
End-Strength: 1,100 (19% Female) **AGR/Mil Tech:** 21%
State Population: 160,000 (6.7 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 54 / 54
Change in Ranking from FY17: NO CHANGE

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	91	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift)	8.4	6.1	2.4–12
PTSD (% with self-reported symptoms)	11	5.1	2.7–11
Depression (% with self-reported symptoms)	5.9	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.0	1.8	0.41–4.1
Hazardous alcohol use (%)	16	5.7	1.5–16
Smoking tobacco use (%)	20	13	2.8–20
Smokeless tobacco use (%)	22	13	0.7–23
Obesity (%)	32	24	14–32
Flagged for weight (%)	4.2	4.9	1.7–8.1
APFT failure (%)	8.5	13	5.1–19
Hypertension (%)	7.1	6.0	3.3–11

ARNG Health Index Score*** **<10th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Hawaii

Army National Guard

Profile (2018)*

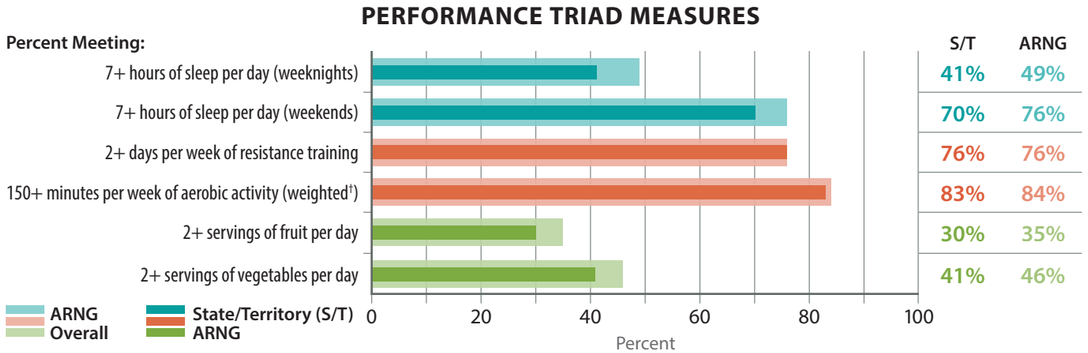
End-Strength: 3,000 (18% Female) **AGR/Mil Tech:** 16%
State Population: 1,400,000 (2.1 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 30 / 54
Change in Ranking from FY17: DOWN 16

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	91	88	77–94
Dental readiness classification (% ready)	95	94	87–97
Hearing (% with significant threshold shift)	5.4	6.1	2.4–12
PTSD (% with self-reported symptoms)	3.7	5.1	2.7–11
Depression (% with self-reported symptoms)	3.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.6	1.8	0.41–4.1
Hazardous alcohol use (%)	7.9	5.7	1.5–16
Smoking tobacco use (%)	12	13	2.8–20
Smokeless tobacco use (%)	9.4	13	0.7–23
Obesity (%)	28	24	14–32
Flagged for weight (%)	3.4	4.9	1.7–8.1
APFT failure (%)	11	13	5.1–19
Hypertension (%)	7.4	6.0	3.3–11

ARNG Health Index Score*** **40–49th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Idaho

Army National Guard

Profile (2018)*

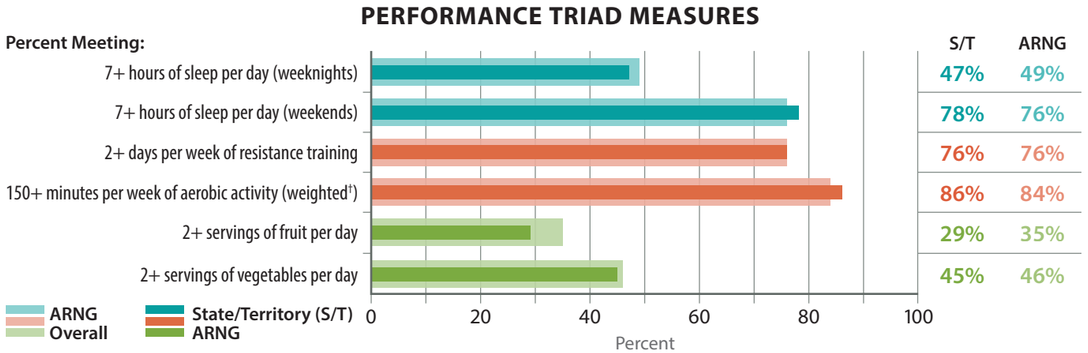
End-Strength: 3,100 (14% Female) **AGR/Mil Tech:** 27%
State Population: 1,800,000 (1.8 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 15 / 54
Change in Ranking from FY17: DOWN 6

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	89	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift))	3.0	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.3	5.1	2.7–11
Depression (% with self-reported symptoms)	4.0	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.4	1.8	0.41–4.1
Hazardous alcohol use (%)	6.3	5.7	1.5–16
Smoking tobacco use (%)	11	13	2.8–20
Smokeless tobacco use (%)	16	13	0.7–23
Obesity (%)	22	24	14–32
Flagged for weight (%)	2.4	4.9	1.7–8.1
APFT failure (%)	6.2	13	5.1–19
Hypertension (%)	7.0	6.0	3.3–11

ARNG Health Index Score*** **70–79th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Illinois

Army National Guard

Profile (2018)*

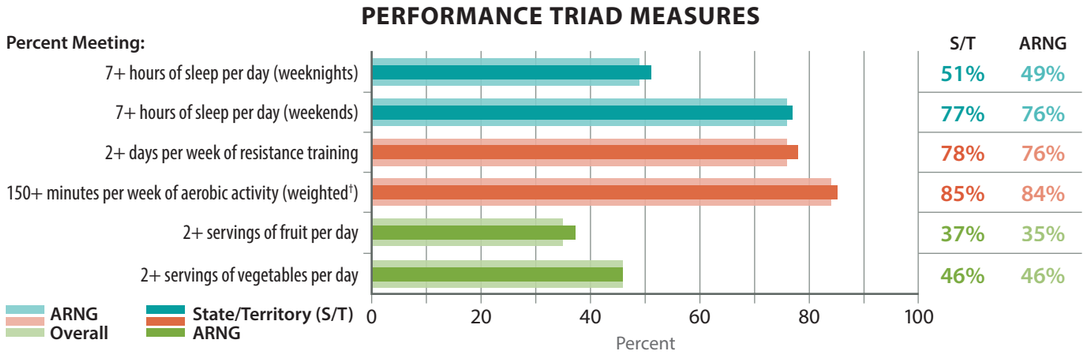
End-Strength: 9,900 (20% Female) **AGR/Mil Tech:** 12%
State Population: 13,000,000 (0.8 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 39 / 54
Change in Ranking from FY17: DOWN 13

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	91	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift)	11	6.1	2.4–12
PTSD (% with self-reported symptoms)	2.7	5.1	2.7–11
Depression (% with self-reported symptoms)	2.3	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.1	1.8	0.41–4.1
Hazardous alcohol use (%)	6.1	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	9.4	13	0.7–23
Obesity (%)	21	24	14–32
Flagged for weight (%)	3.4	4.9	1.7–8.1
APFT failure (%)	12	13	5.1–19
Hypertension (%)	3.3	6.0	3.3–11

ARNG Health Index Score*** **20–29th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Indiana

Army National Guard

Profile (2018)*

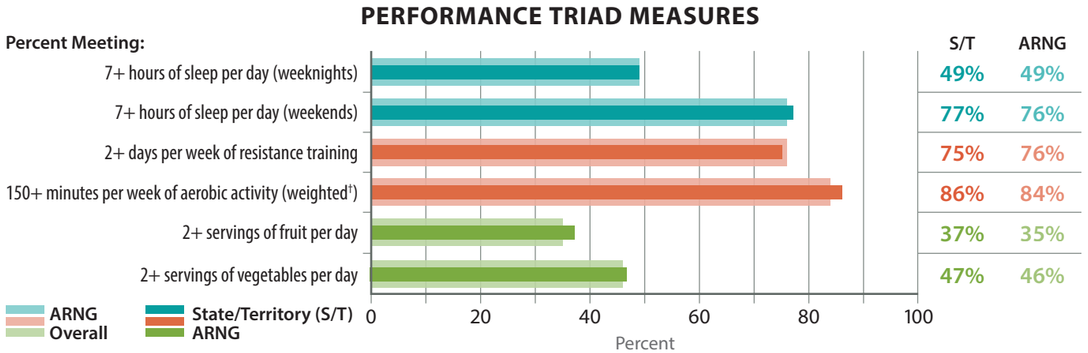
End-Strength: 12,000 (17% Female) **AGR/Mil Tech:** 13%
State Population: 6,700,000 (1.7 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 44 / 54
Change in Ranking from FY17: DOWN 11

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	89	88	77–94
Dental readiness classification (% ready)	97	94	87–97
Hearing (% with significant threshold shift)	3.4	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.0	5.1	2.7–11
Depression (% with self-reported symptoms)	3.5	3.8	2.0–6.4
Tested positive for illegal drug use (%)	3.8	1.8	0.41–4.1
Hazardous alcohol use (%)	5.5	5.7	1.5–16
Smoking tobacco use (%)	16	13	2.8–20
Smokeless tobacco use (%)	17	13	0.7–23
Obesity (%)	24	24	14–32
Flagged for weight (%)	7.6	4.9	1.7–8.1
APFT failure (%)	15	13	5.1–19
Hypertension (%)	4.8	6.0	3.3–11

ARNG Health Index Score*** **10–19th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
***The Health Index Score is a composite of all listed measures in relation to the ARNG averages; percentile ranges represent where a State/Territory ranks (higher percentiles reflect better ranking installations).
† Please see page 42 for a description of the aerobic activity target.

Iowa

Army National Guard

Profile (2018)*

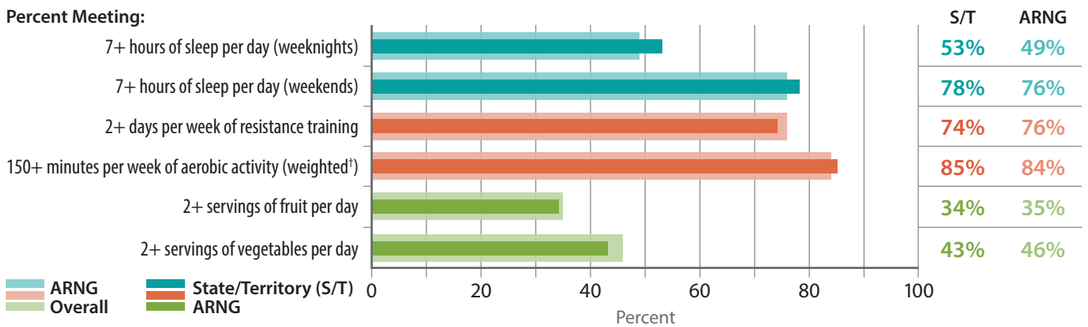
End-Strength: 6,600 (16% Female) **AGR/Mil Tech:** 16%
State Population: 3,200,000 (2.1 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 23 / 54
Change in Ranking from FY17: DOWN 4

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	89	88	77–94
Dental readiness classification (% ready)	95	94	87–97
Hearing (% with significant threshold shift)	6.1	6.1	2.4–12
PTSD (% with self-reported symptoms)	3.4	5.1	2.7–11
Depression (% with self-reported symptoms)	2.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.4	1.8	0.41–4.1
Hazardous alcohol use (%)	5.9	5.7	1.5–16
Smoking tobacco use (%)	14	13	2.8–20
Smokeless tobacco use (%)	18	13	0.7–23
Obesity (%)	22	24	14–32
Flagged for weight (%)	5.3	4.9	1.7–8.1
APFT failure (%)	12	13	5.1–19
Hypertension (%)	3.5	6.0	3.3–11

ARNG Health Index Score*** **50–59th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Kansas

Army National Guard

Profile (2018)*

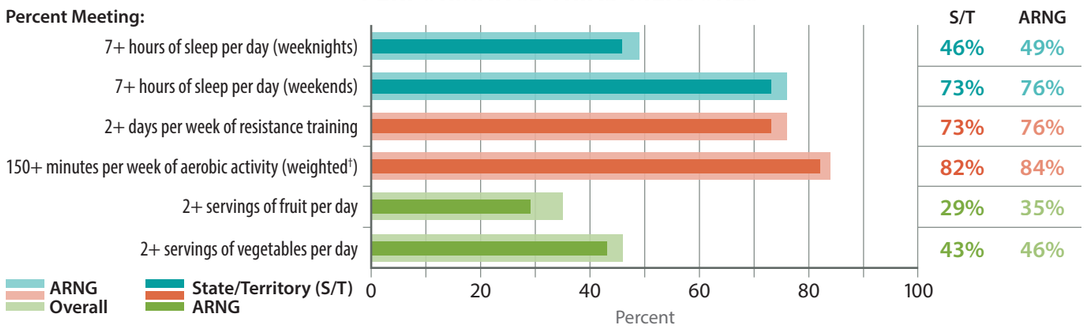
End-Strength: 4,300 (15% Female) **AGR/Mil Tech:** 21%
State Population: 2,900,000 (1.5 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 40 / 54
Change in Ranking from FY17: UP 3

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	87	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	4.1	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.7	5.1	2.7–11
Depression (% with self-reported symptoms)	3.7	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.3	1.8	0.41–4.1
Hazardous alcohol use (%)	6.8	5.7	1.5–16
Smoking tobacco use (%)	17	13	2.8–20
Smokeless tobacco use (%)	19	13	0.7–23
Obesity (%)	30	24	14–32
Flagged for weight (%)	7.8	4.9	1.7–8.1
APFT failure (%)	14	13	5.1–19
Hypertension (%)	8.1	6.0	3.3–11

ARNG Health Index Score*** **20–29th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Kentucky
Army National Guard

Profile (2018)*

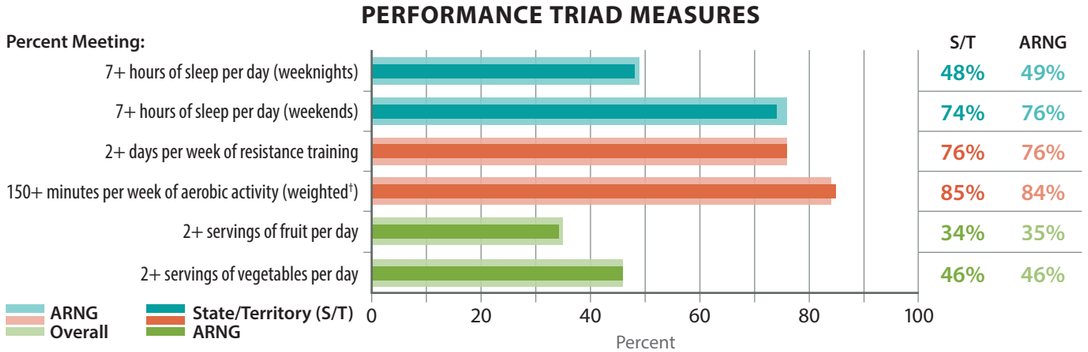
End-Strength: 6,500 (13% Female) **AGR/Mil Tech:** 16%
State Population: 4,500,000 (1.4 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 33 / 54
Change in Ranking from FY17: UP 4

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	88	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	5.4	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.2	5.1	2.7–11
Depression (% with self-reported symptoms)	3.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.0	1.8	0.41–4.1
Hazardous alcohol use (%)	4.9	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	19	13	0.7–23
Obesity (%)	21	24	14–32
Flagged for weight (%)	4.4	4.9	1.7–8.1
APFT failure (%)	16	13	5.1–19
Hypertension (%)	5.7	6.0	3.3–11

ARNG Health Index Score*** **30–39th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Louisiana
Army National Guard

Profile (2018)*

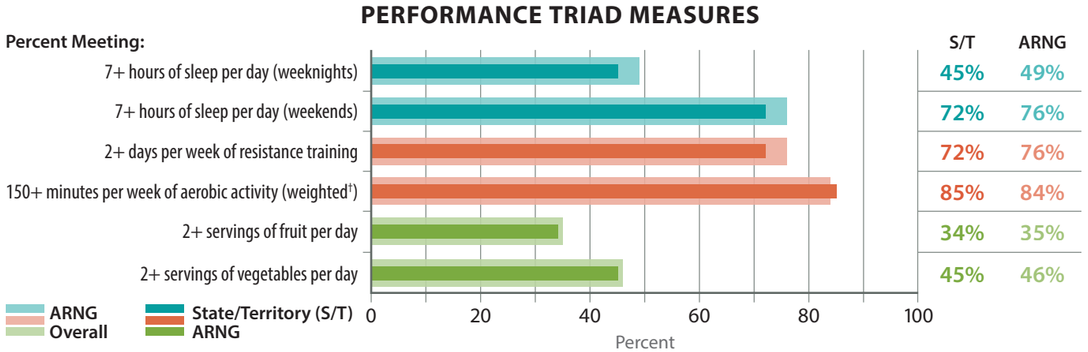
End-Strength: 9,800 (22% Female) **AGR/Mil Tech:** 15%
State Population: 4,700,000 (2.1 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 53 / 54
Change in Ranking from FY17: NO CHANGE

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	84	88	77–94
Dental readiness classification (% ready)	92	94	87–97
Hearing (% with significant threshold shift)	8.5	6.1	2.4–12
PTSD (% with self-reported symptoms)	8.2	5.1	2.7–11
Depression (% with self-reported symptoms)	6.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	4.1	1.8	0.41–4.1
Hazardous alcohol use (%)	7.4	5.7	1.5–16
Smoking tobacco use (%)	18	13	2.8–20
Smokeless tobacco use (%)	13	13	0.7–23
Obesity (%)	26	24	14–32
Flagged for weight (%)	4.9	4.9	1.7–8.1
APFT failure (%)	19	13	5.1–19
Hypertension (%)	6.9	6.0	3.3–11

ARNG Health Index Score*** **<10th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Maine

Army National Guard

Profile (2018)*

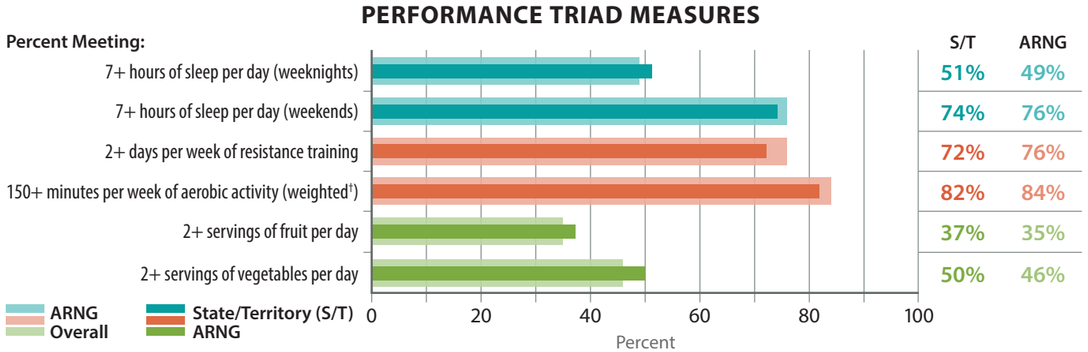
End-Strength: 1,900 (14% Female) **AGR/Mil Tech:** 21%
State Population: 1,300,000 (1.5 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 32 / 54
Change in Ranking from FY17: DOWN 8

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	90	88	77–94
Dental readiness classification (% ready)	97	94	87–97
Hearing (% with significant threshold shift)	3.9	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.9	5.1	2.7–11
Depression (% with self-reported symptoms)	3.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.2	1.8	0.41–4.1
Hazardous alcohol use (%)	5.2	5.7	1.5–16
Smoking tobacco use (%)	14	13	2.8–20
Smokeless tobacco use (%)	14	13	0.7–23
Obesity (%)	27	24	14–32
Flagged for weight (%)	6.0	4.9	1.7–8.1
APFT failure (%)	13	13	5.1–19
Hypertension (%)	6.0	6.0	3.3–11

ARNG Health Index Score*** **40–49th percentile**

PERFORMANCE TRIAD MEASURES



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** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Maryland

Army National Guard

Profile (2018)*

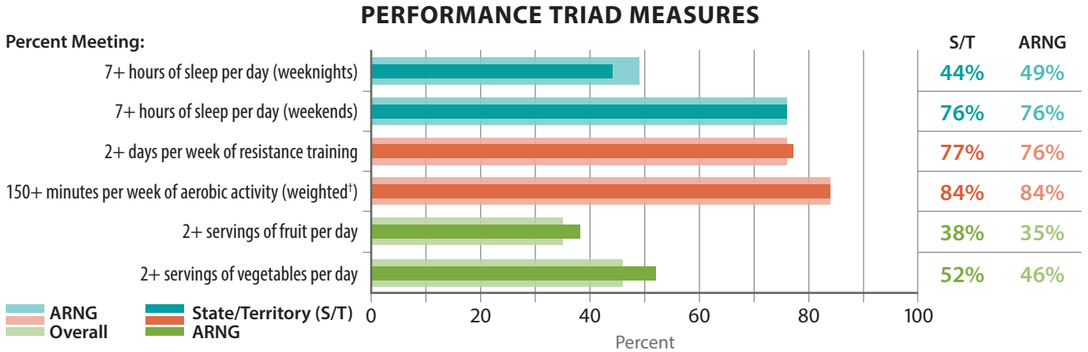
End-Strength: 4,600 (17% Female) **AGR/Mil Tech:** 17%
State Population: 6,000,000 (0.8 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 19 / 54
Change in Ranking from FY17: UP 8

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	90	88	77–94
Dental readiness classification (% ready)	95	94	87–97
Hearing (% with significant threshold shift)	4.2	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.2	5.1	2.7–11
Depression (% with self-reported symptoms)	3.3	3.8	2.0–6.4
Tested positive for illegal drug use (%)	0.66	1.8	0.41–4.1
Hazardous alcohol use (%)	4.9	5.7	1.5–16
Smoking tobacco use (%)	12	13	2.8–20
Smokeless tobacco use (%)	8.0	13	0.7–23
Obesity (%)	23	24	14–32
Flagged for weight (%)	3.7	4.9	1.7–8.1
APFT failure (%)	10	13	5.1–19
Hypertension (%)	9.1	6.0	3.3–11

ARNG Health Index Score*** **60–69th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Massachusetts
Army National Guard

Profile (2018)*

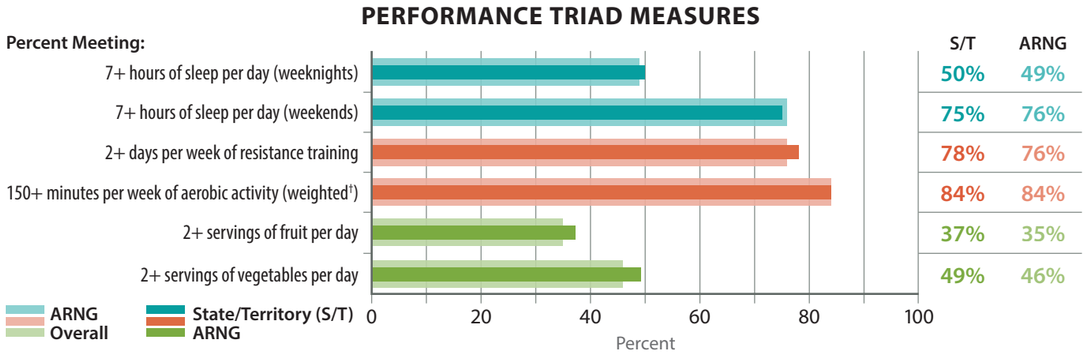
End-Strength: 5,900 (16% Female) **AGR/Mil Tech:** 15%
State Population: 6,900,000 (0.9 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 36 / 54
Change in Ranking from FY17: DOWN 2

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	92	88	77–94
Dental readiness classification (% ready)	95	94	87–97
Hearing (% with significant threshold shift)	6.8	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.0	5.1	2.7–11
Depression (% with self-reported symptoms)	3.0	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.2	1.8	0.41–4.1
Hazardous alcohol use (%)	5.5	5.7	1.5–16
Smoking tobacco use (%)	11	13	2.8–20
Smokeless tobacco use (%)	7.2	13	0.7–23
Obesity (%)	25	24	14–32
Flagged for weight (%)	5.6	4.9	1.7–8.1
APFT failure (%)	13	13	5.1–19
Hypertension (%)	4.2	6.0	3.3–11

ARNG Health Index Score*** **30–39th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Michigan
Army National Guard

Profile (2018)*

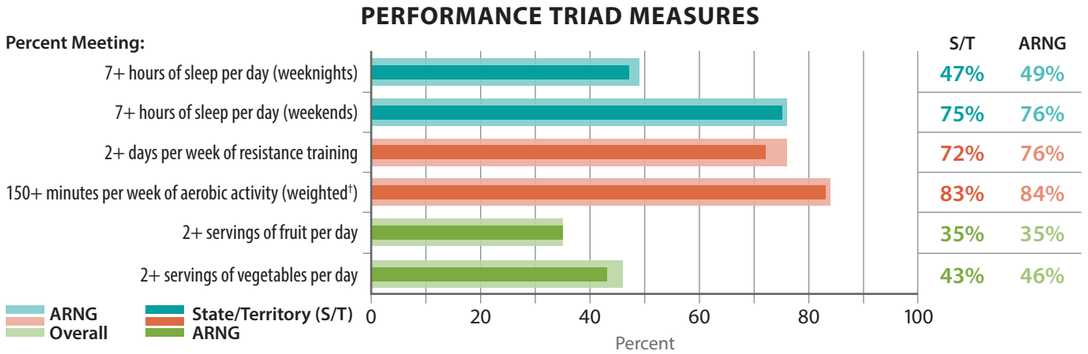
End-Strength: 8,000 (17% Female) **AGR/Mil Tech:** 16%
State Population: 10,000,000 (0.8 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 45 / 54
Change in Ranking from FY17: NO CHANGE

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	89	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	6.3	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.4	5.1	2.7–11
Depression (% with self-reported symptoms)	3.6	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.3	1.8	0.41–4.1
Hazardous alcohol use (%)	5.1	5.7	1.5–16
Smoking tobacco use (%)	15	13	2.8–20
Smokeless tobacco use (%)	15	13	0.7–23
Obesity (%)	24	24	14–32
Flagged for weight (%)	7.2	4.9	1.7–8.1
APFT failure (%)	17	13	5.1–19
Hypertension (%)	5.3	6.0	3.3–11

ARNG Health Index Score*** **10–19th percentile**

PERFORMANCE TRIAD MEASURES



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** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Minnesota
Army National Guard

Profile (2018)*

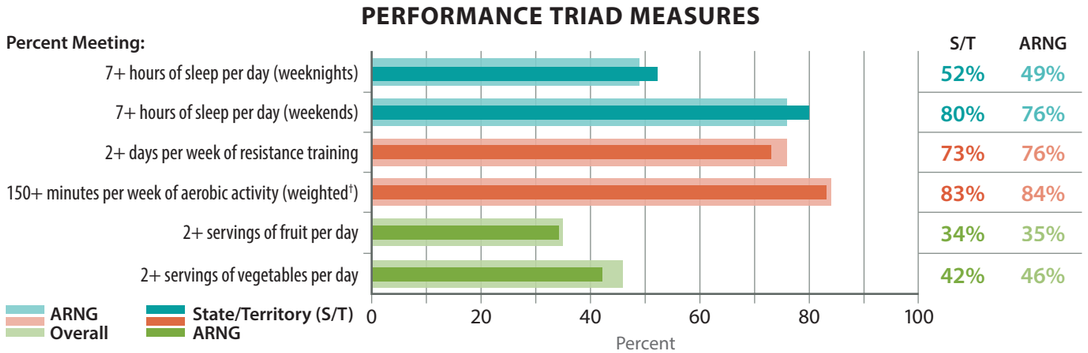
End-Strength: 11,000 (18% Female) **AGR/Mil Tech:** 12%
State Population: 5,600,000 (1.9 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 38 / 54
Change in Ranking from FY17: DOWN 10

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	91	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift)	6.5	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.0	5.1	2.7–11
Depression (% with self-reported symptoms)	3.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.2	1.8	0.41–4.1
Hazardous alcohol use (%)	7.4	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	17	13	0.7–23
Obesity (%)	18	24	14–32
Flagged for weight (%)	6.5	4.9	1.7–8.1
APFT failure (%)	15	13	5.1–19
Hypertension (%)	3.4	6.0	3.3–11

ARNG Health Index Score*** **20–29th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Mississippi
Army National Guard

Profile (2018)*

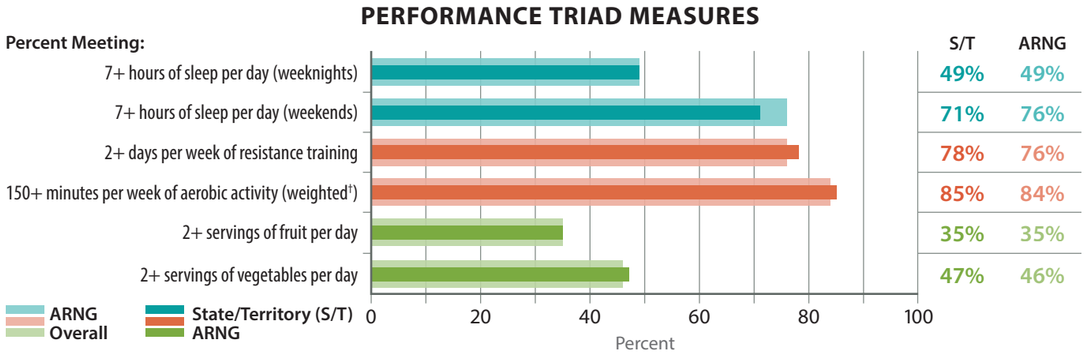
End-Strength: 9,600 (17% Female) **AGR/Mil Tech:** 17%
State Population: 3,000,000 (3.2 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 27 / 54
Change in Ranking from FY17: UP 24

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	77	88	77–94
Dental readiness classification (% ready)	87	94	87–97
Hearing (% with significant threshold shift)	6.2	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.2	5.1	2.7–11
Depression (% with self-reported symptoms)	4.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.9	1.8	0.41–4.1
Hazardous alcohol use (%)	4.8	5.7	1.5–16
Smoking tobacco use (%)	16	13	2.8–20
Smokeless tobacco use (%)	15	13	0.7–23
Obesity (%)	29	24	14–32
Flagged for weight (%)	3.9	4.9	1.7–8.1
APFT failure (%)	16	13	5.1–19
Hypertension (%)	8.2	6.0	3.3–11

ARNG Health Index Score*** **50–59th percentile**

PERFORMANCE TRIAD MEASURES



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** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Missouri

Army National Guard

Profile (2018)*

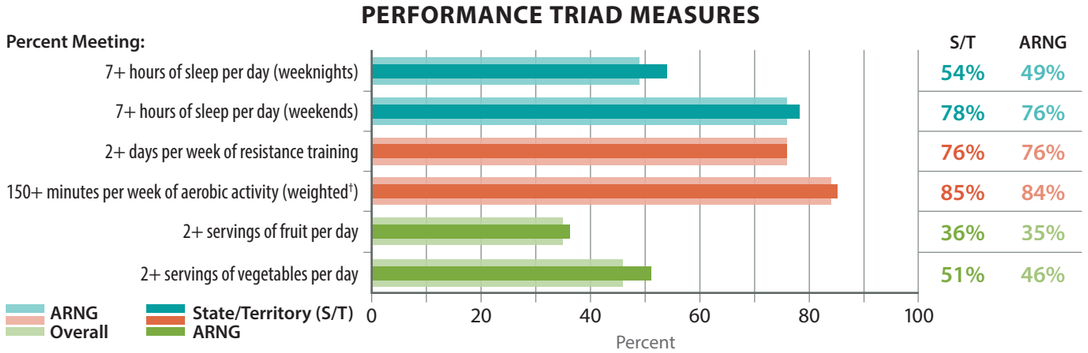
End-Strength: 9,200 (16% Female) **AGR/Mil Tech:** 16%
State Population: 6,000,000 (1.5 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 26 / 54
Change in Ranking from FY17: UP 4

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	86	88	77–94
Dental readiness classification (% ready)	93	94	87–97
Hearing (% with significant threshold shift)	7.0	6.1	2.4–12
PTSD (% with self-reported symptoms)	3.6	5.1	2.7–11
Depression (% with self-reported symptoms)	2.8	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.2	1.8	0.41–4.1
Hazardous alcohol use (%)	5.5	5.7	1.5–16
Smoking tobacco use (%)	15	13	2.8–20
Smokeless tobacco use (%)	18	13	0.7–23
Obesity (%)	23	24	14–32
Flagged for weight (%)	5.3	4.9	1.7–8.1
APFT failure (%)	15	13	5.1–19
Hypertension (%)	6.3	6.0	3.3–11

ARNG Health Index Score*** **50–59th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Montana

Army National Guard

Profile (2018)*

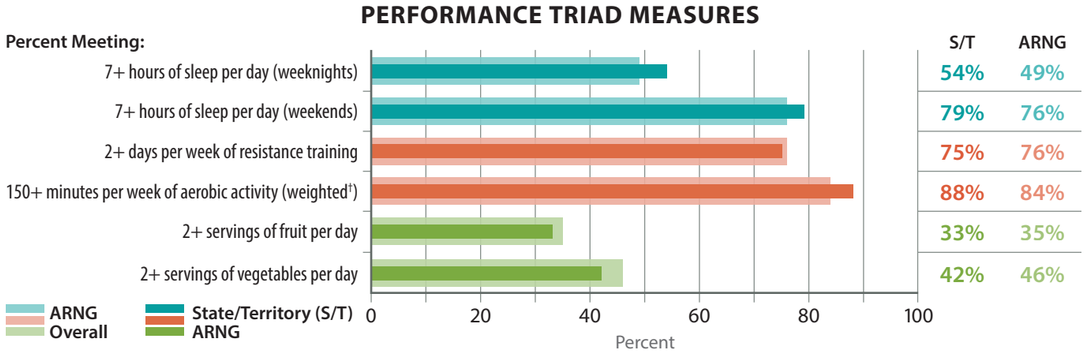
End-Strength: 2,500 (18% Female) **AGR/Mil Tech:** 19%
State Population: 1,100,000 (2.3 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 9 / 54
Change in Ranking from FY17: UP 11

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	86	88	77–94
Dental readiness classification (% ready)	93	94	87–97
Hearing (% with significant threshold shift))	4.9	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.1	5.1	2.7–11
Depression (% with self-reported symptoms)	4.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	0.70	1.8	0.41–4.1
Hazardous alcohol use (%)	7.8	5.7	1.5–16
Smoking tobacco use (%)	11	13	2.8–20
Smokeless tobacco use (%)	21	13	0.7–23
Obesity (%)	14	24	14–32
Flagged for weight (%)	4.3	4.9	1.7–8.1
APFT failure (%)	8.5	13	5.1–19
Hypertension (%)	5.3	6.0	3.3–11

ARNG Health Index Score*** **80–89th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
***The Health Index Score is a composite of all listed measures in relation to the ARNG averages; percentile ranges represent where a State/Territory ranks (higher percentiles reflect better ranking installations).
† Please see page 42 for a description of the aerobic activity target.

Nebraska

Army National Guard

Profile (2018)*

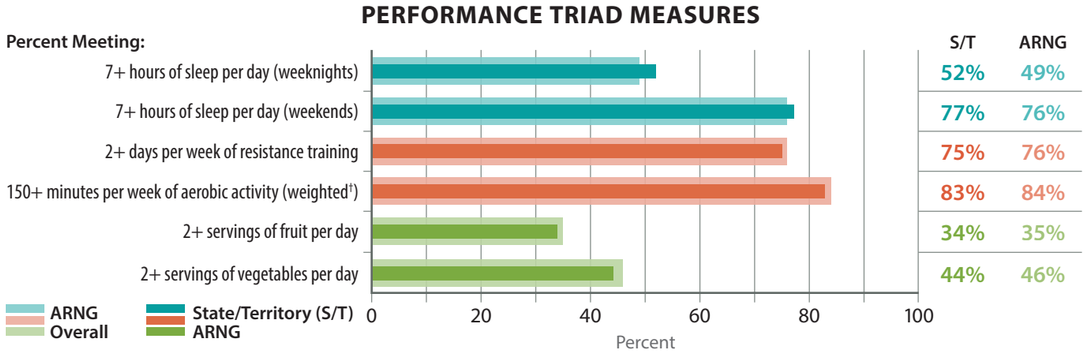
End-Strength: 3,200 (15% Female) **AGR/Mil Tech:** 20%
State Population: 1,900,000 (1.7 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 25 / 54
Change in Ranking from FY17: NO CHANGE

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	89	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	7.2	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.5	5.1	2.7–11
Depression (% with self-reported symptoms)	3.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.1	1.8	0.41–4.1
Hazardous alcohol use (%)	11	5.7	1.5–16
Smoking tobacco use (%)	12	13	2.8–20
Smokeless tobacco use (%)	20	13	0.7–23
Obesity (%)	18	24	14–32
Flagged for weight (%)	5.3	4.9	1.7–8.1
APFT failure (%)	11	13	5.1–19
Hypertension (%)	4.2	6.0	3.3–11

ARNG Health Index Score*** **50–59th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
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† Please see page 42 for a description of the aerobic activity target.

Nevada

Army National Guard

Profile (2018)*

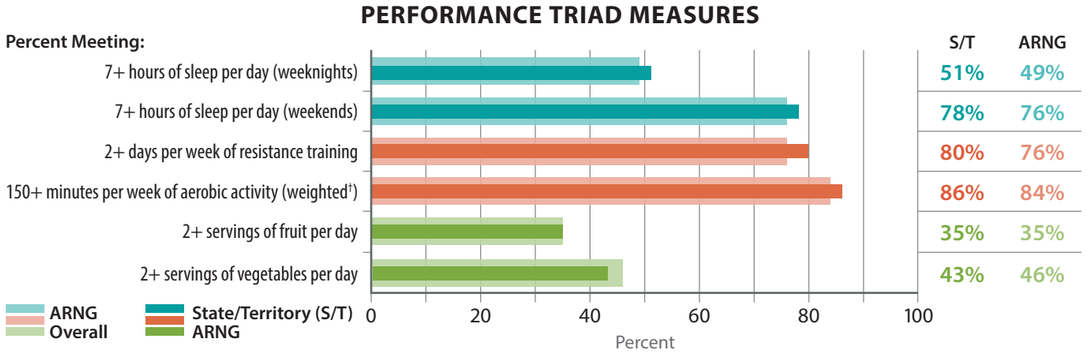
End-Strength: 3,100 (22% Female) **AGR/Mil Tech:** 16%
State Population: 3,000,000 (1.0 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 6 / 54
Change in Ranking from FY17: NO CHANGE

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	86	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	3.4	6.1	2.4–12
PTSD (% with self-reported symptoms)	3.9	5.1	2.7–11
Depression (% with self-reported symptoms)	3.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.4	1.8	0.41–4.1
Hazardous alcohol use (%)	3.9	5.7	1.5–16
Smoking tobacco use (%)	8.4	13	2.8–20
Smokeless tobacco use (%)	9.4	13	0.7–23
Obesity (%)	20	24	14–32
Flagged for weight (%)	5.0	4.9	1.7–8.1
APFT failure (%)	10	13	5.1–19
Hypertension (%)	3.7	6.0	3.3–11

ARNG Health Index Score*** **80–89th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

New Hampshire
Army National Guard

Profile (2018)*

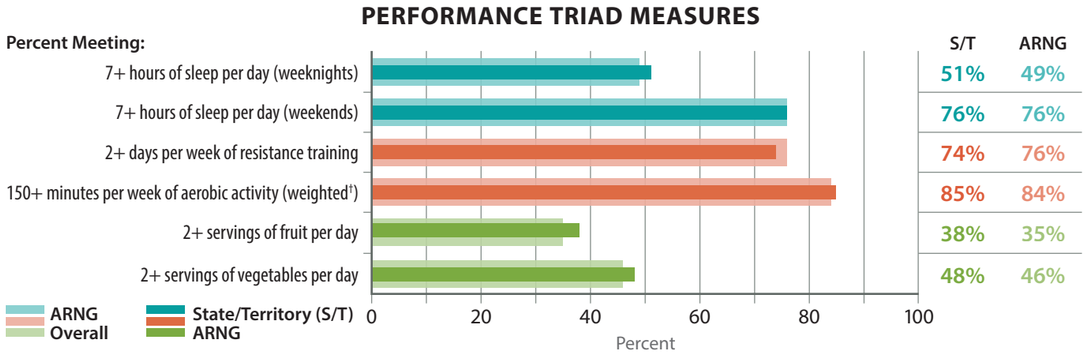
End-Strength: 1,600 (13% Female) **AGR/Mil Tech:** 21%
State Population: 1,400,000 (1.2 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 37 / 54
Change in Ranking from FY17: DOWN 15

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	92	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift)	5.7	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.2	5.1	2.7–11
Depression (% with self-reported symptoms)	3.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.4	1.8	0.41–4.1
Hazardous alcohol use (%)	8.4	5.7	1.5–16
Smoking tobacco use (%)	11	13	2.8–20
Smokeless tobacco use (%)	12	13	0.7–23
Obesity (%)	21	24	14–32
Flagged for weight (%)	3.4	4.9	1.7–8.1
APFT failure (%)	11	13	5.1–19
Hypertension (%)	4.6	6.0	3.3–11

ARNG Health Index Score*** **30–39th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
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† Please see page 42 for a description of the aerobic activity target.

New Jersey
Army National Guard

Profile (2018)*

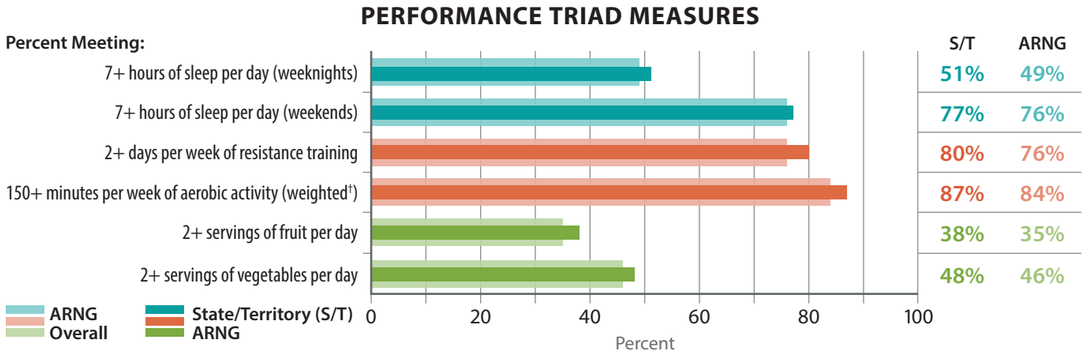
End-Strength: 6,000 (18% Female) **AGR/Mil Tech:** 15%
State Population: 8,900,000 (0.7 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 11 / 54
Change in Ranking from FY17: DOWN 1

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	85	88	77–94
Dental readiness classification (% ready)	93	94	87–97
Hearing (% with significant threshold shift)	3.6	6.1	2.4–12
PTSD (% with self-reported symptoms)	2.8	5.1	2.7–11
Depression (% with self-reported symptoms)	2.5	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.2	1.8	0.41–4.1
Hazardous alcohol use (%)	3.2	5.7	1.5–16
Smoking tobacco use (%)	11	13	2.8–20
Smokeless tobacco use (%)	6.9	13	0.7–23
Obesity (%)	27	24	14–32
Flagged for weight (%)	4.7	4.9	1.7–8.1
APFT failure (%)	13	13	5.1–19
Hypertension (%)	5.5	6.0	3.3–11

ARNG Health Index Score*** **80–89th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
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† Please see page 42 for a description of the aerobic activity target.

New Mexico
Army National Guard

Profile (2018)*

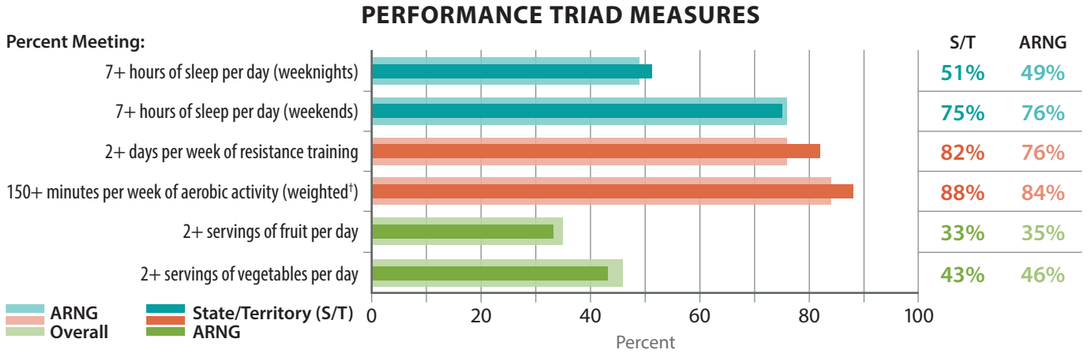
End-Strength: 2,700 (20% Female) **AGR/Mil Tech:** 16%
State Population: 2,100,000 (1.3 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 47 / 54
Change in Ranking from FY17: DOWN 8

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	92	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift)	5.0	6.1	2.4–12
PTSD (% with self-reported symptoms)	6.4	5.1	2.7–11
Depression (% with self-reported symptoms)	4.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.4	1.8	0.41–4.1
Hazardous alcohol use (%)	7.4	5.7	1.5–16
Smoking tobacco use (%)	9.9	13	2.8–20
Smokeless tobacco use (%)	13	13	0.7–23
Obesity (%)	24	24	14–32
Flagged for weight (%)	4.3	4.9	1.7–8.1
APFT failure (%)	12	13	5.1–19
Hypertension (%)	5.5	6.0	3.3–11

ARNG Health Index Score*** **10–19th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

New York
Army National Guard

Profile (2018)*

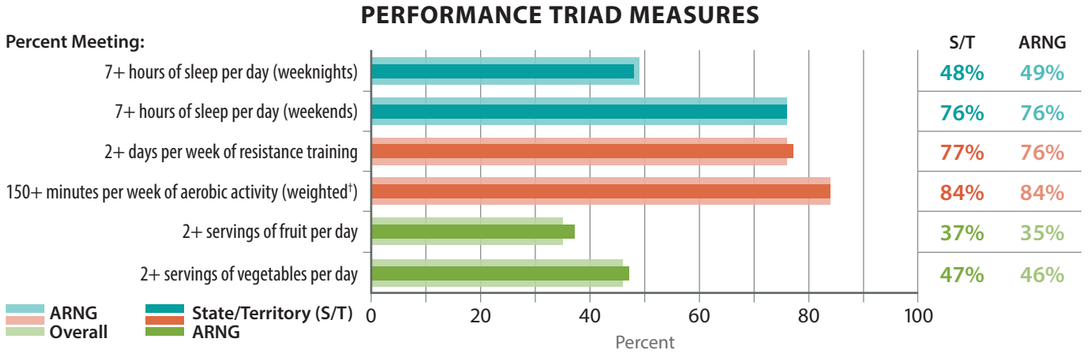
End-Strength: 9,900 (17% Female) **AGR/Mil Tech:** 14%
State Population: 20,000,000 (0.5 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 20 / 54
Change in Ranking from FY17: DOWN 8

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	88	88	77–94
Dental readiness classification (% ready)	95	94	87–97
Hearing (% with significant threshold shift)	6.2	6.1	2.4–12
PTSD (% with self-reported symptoms)	3.5	5.1	2.7–11
Depression (% with self-reported symptoms)	2.9	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.5	1.8	0.41–4.1
Hazardous alcohol use (%)	5.1	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	8.5	13	0.7–23
Obesity (%)	25	24	14–32
Flagged for weight (%)	5.7	4.9	1.7–8.1
APFT failure (%)	13	13	5.1–19
Hypertension (%)	4.2	6.0	3.3–11

ARNG Health Index Score*** **60–69th percentile**

PERFORMANCE TRIAD MEASURES



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† Please see page 42 for a description of the aerobic activity target.

North Carolina

Army National Guard

Profile (2018)*

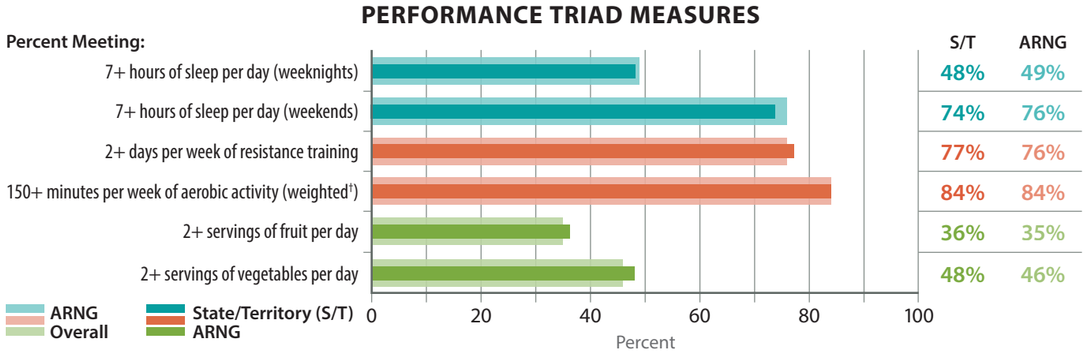
End-Strength: 10,000 (19% Female) **AGR/Mil Tech:** 15%
State Population: 10,000,000 (1.0 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 34 / 54
Change in Ranking from FY17: UP 10

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	85	88	77–94
Dental readiness classification (% ready)	91	94	87–97
Hearing (% with significant threshold shift)	6.8	6.1	2.4–12
PTSD (% with self-reported symptoms)	6.2	5.1	2.7–11
Depression (% with self-reported symptoms)	4.3	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.0	1.8	0.41–4.1
Hazardous alcohol use (%)	5.4	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	13	13	0.7–23
Obesity (%)	25	24	14–32
Flagged for weight (%)	4.7	4.9	1.7–8.1
APFT failure (%)	13	13	5.1–19
Hypertension (%)	6.2	6.0	3.3–11

ARNG Health Index Score*** **30–39th percentile**

PERFORMANCE TRIAD MEASURES



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† Please see page 42 for a description of the aerobic activity target.

North Dakota

Army National Guard

Profile (2018)*

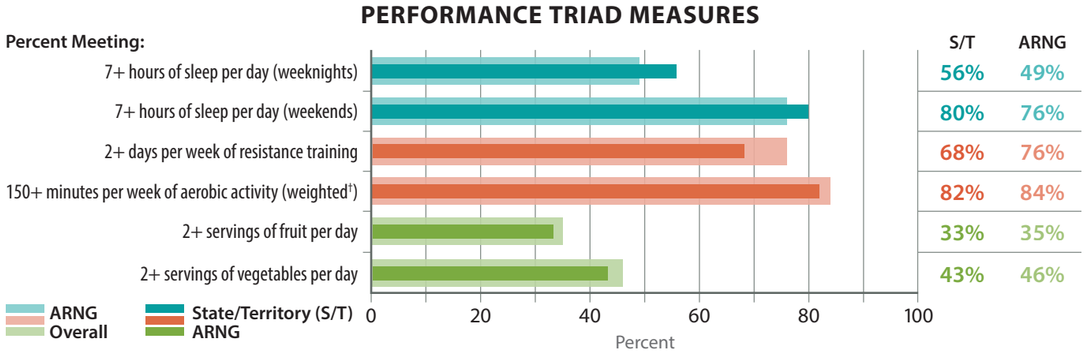
End-Strength: 2,900 (19% Female) **AGR/Mil Tech:** 21%
State Population: 760,000 (3.8 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 31 / 54
Change in Ranking from FY17: DOWN 14

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	94	88	77–94
Dental readiness classification (% ready)	97	94	87–97
Hearing (% with significant threshold shift)	2.5	6.1	2.4–12
PTSD (% with self-reported symptoms)	3.8	5.1	2.7–11
Depression (% with self-reported symptoms)	2.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	0.41	1.8	0.41–4.1
Hazardous alcohol use (%)	10	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	18	13	0.7–23
Obesity (%)	24	24	14–32
Flagged for weight (%)	6.5	4.9	1.7–8.1
APFT failure (%)	12	13	5.1–19
Hypertension (%)	6.2	6.0	3.3–11

ARNG Health Index Score*** **40–49th percentile**

PERFORMANCE TRIAD MEASURES



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** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Ohio

Army National Guard

Profile (2018)*

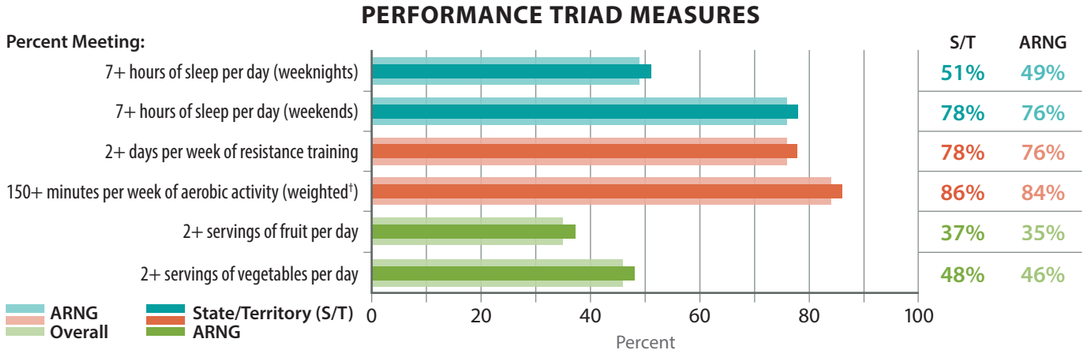
End-Strength: 12,000 (19% Female) **AGR/Mil Tech:** 12%
State Population: 12,000,000 (1.0 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 16 / 54
Change in Ranking from FY17: DOWN 8

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	85	88	77–94
Dental readiness classification (% ready)	93	94	87–97
Hearing (% with significant threshold shift)	5.2	6.1	2.4–12
PTSD (% with self-reported symptoms)	3.1	5.1	2.7–11
Depression (% with self-reported symptoms)	2.9	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.8	1.8	0.41–4.1
Hazardous alcohol use (%)	5.1	5.7	1.5–16
Smoking tobacco use (%)	11	13	2.8–20
Smokeless tobacco use (%)	16	13	0.7–23
Obesity (%)	22	24	14–32
Flagged for weight (%)	4.7	4.9	1.7–8.1
APFT failure (%)	13	13	5.1–19
Hypertension (%)	3.8	6.0	3.3–11

ARNG Health Index Score*** **70–79th percentile**

PERFORMANCE TRIAD MEASURES



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** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Oklahoma

Army National Guard

Profile (2018)*

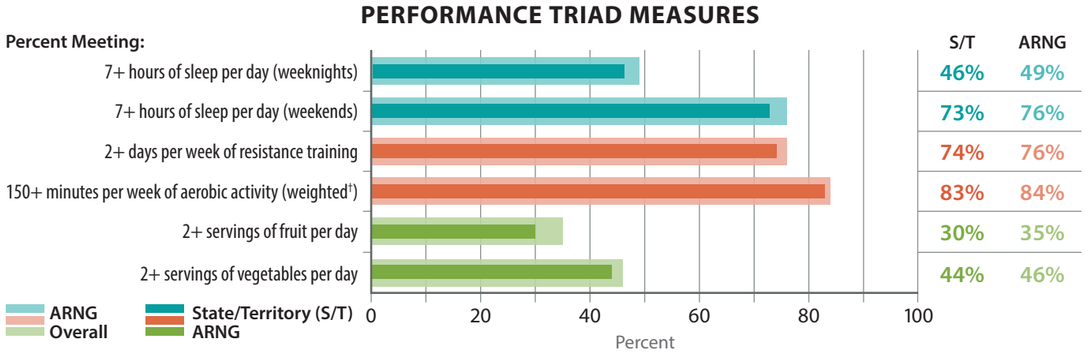
End-Strength: 6,600 (17% Female) **AGR/Mil Tech:** 15%
State Population: 3,900,000 (1.7 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 52 / 54
Change in Ranking from FY17: DOWN 11

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	90	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift)	4.9	6.1	2.4–12
PTSD (% with self-reported symptoms)	7.3	5.1	2.7–11
Depression (% with self-reported symptoms)	5.0	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.6	1.8	0.41–4.1
Hazardous alcohol use (%)	5.6	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	19	13	0.7–23
Obesity (%)	24	24	14–32
Flagged for weight (%)	8.1	4.9	1.7–8.1
APFT failure (%)	16	13	5.1–19
Hypertension (%)	8.0	6.0	3.3–11

ARNG Health Index Score*** **<10th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Oregon
Army National Guard

Profile (2018)*

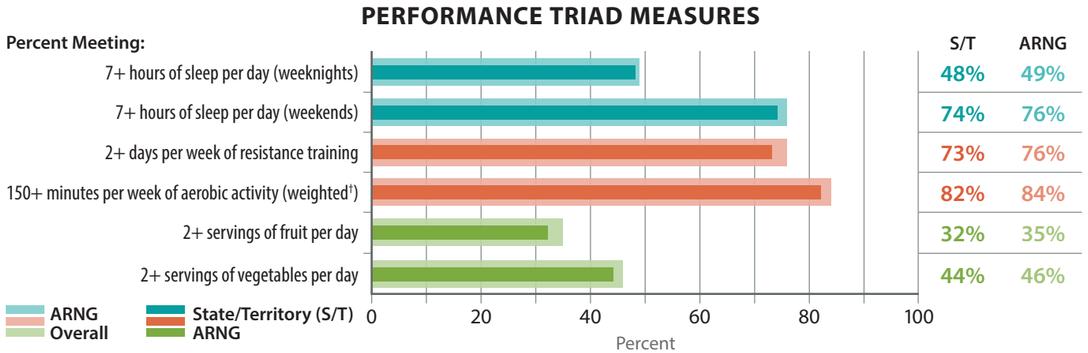
End-Strength: 5,500 (15% Female) **AGR/Mil Tech:** 16%
State Population: 4,200,000 (1.3 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 50 / 54
Change in Ranking from FY17: NO CHANGE

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	89	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	5.7	6.1	2.4–12
PTSD (% with self-reported symptoms)	7.9	5.1	2.7–11
Depression (% with self-reported symptoms)	6.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.4	1.8	0.41–4.1
Hazardous alcohol use (%)	8.5	5.7	1.5–16
Smoking tobacco use (%)	12	13	2.8–20
Smokeless tobacco use (%)	17	13	0.7–23
Obesity (%)	23	24	14–32
Flagged for weight (%)	5.8	4.9	1.7–8.1
APFT failure (%)	13	13	5.1–19
Hypertension (%)	6.3	6.0	3.3–11

ARNG Health Index Score*** **<10th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
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† Please see page 42 for a description of the aerobic activity target.

Pennsylvania
Army National Guard

Profile (2018)*

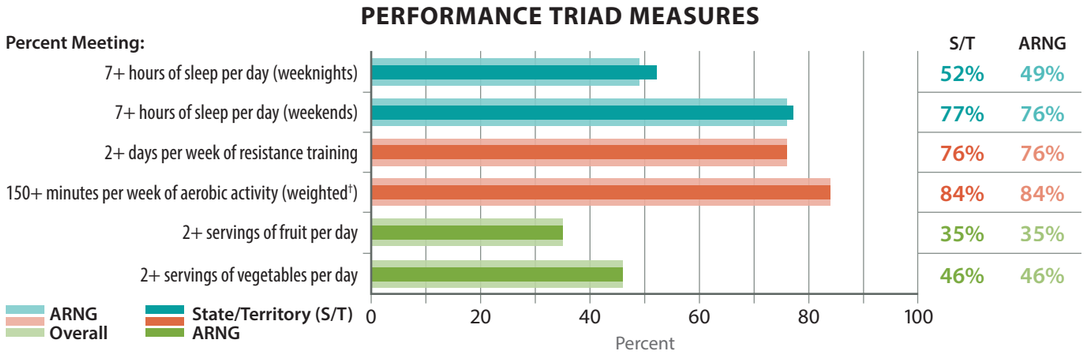
End-Strength: 15,000 (18% Female) **AGR/Mil Tech:** 15%
State Population: 13,000,000 (1.2 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 24 / 54
Change in Ranking from FY17: UP 16

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	84	88	77–94
Dental readiness classification (% ready)	91	94	87–97
Hearing (% with significant threshold shift)	6.4	6.1	2.4–12
PTSD (% with self-reported symptoms)	3.9	5.1	2.7–11
Depression (% with self-reported symptoms)	3.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.1	1.8	0.41–4.1
Hazardous alcohol use (%)	5.0	5.7	1.5–16
Smoking tobacco use (%)	14	13	2.8–20
Smokeless tobacco use (%)	14	13	0.7–23
Obesity (%)	23	24	14–32
Flagged for weight (%)	5.6	4.9	1.7–8.1
APFT failure (%)	16	13	5.1–19
Hypertension (%)	4.5	6.0	3.3–11

ARNG Health Index Score*** **50–59th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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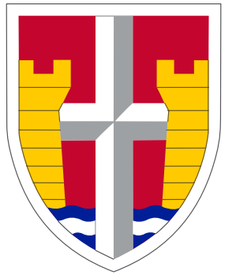
† Please see page 42 for a description of the aerobic activity target.

Puerto Rico

Army National Guard



Profile (2018)*

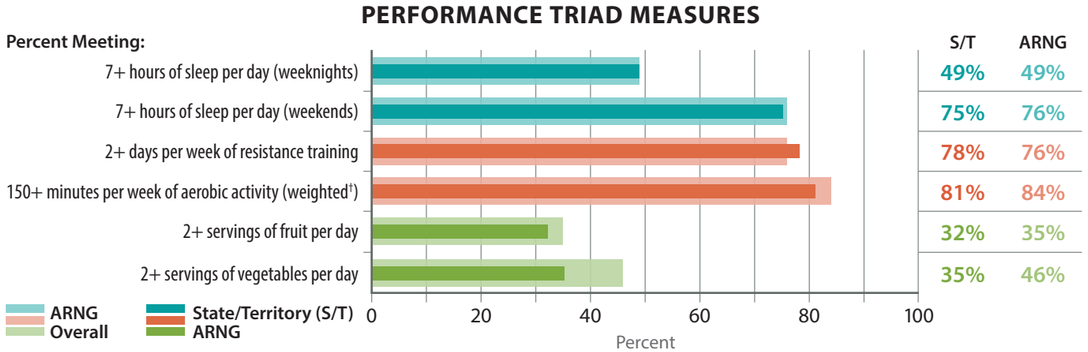
End-Strength: 6,000 (13% Female) **AGR/Mil Tech:** 15%
State Population: 3,200,000 (1.9 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 10 / 54
Change in Ranking from FY17: DOWN 8

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	90	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift)	3.9	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.2	5.1	2.7–11
Depression (% with self-reported symptoms)	3.6	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.2	1.8	0.41–4.1
Hazardous alcohol use (%)	4.4	5.7	1.5–16
Smoking tobacco use (%)	9.7	13	2.8–20
Smokeless tobacco use (%)	1.9	13	0.7–23
Obesity (%)	29	24	14–32
Flagged for weight (%)	1.7	4.9	1.7–8.1
APFT failure (%)	5.3	13	5.1–19
Hypertension (%)	9.1	6.0	3.3–11

ARNG Health Index Score*** **80–89th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
***The Health Index Score is a composite of all listed measures in relation to the ARNG averages; percentile ranges represent where a State/Territory ranks (higher percentiles reflect better ranking installations).
† Please see page 42 for a description of the aerobic activity target.

Rhode Island

Army National Guard

Profile (2018)*

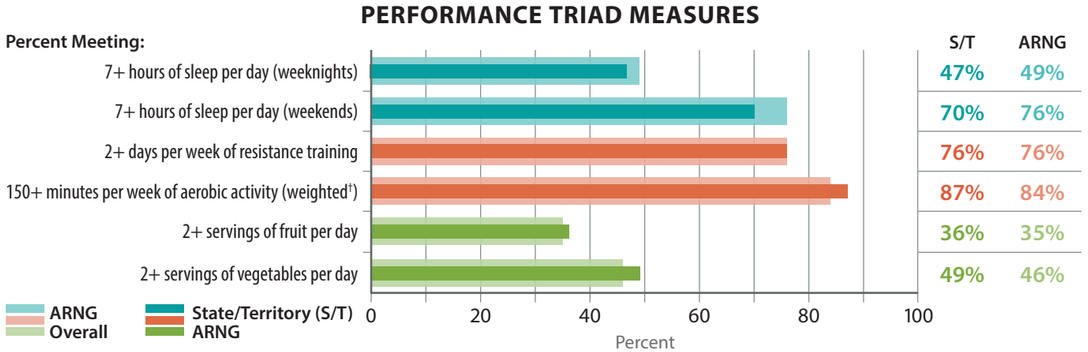
End-Strength: 2,000 (15% Female) **AGR/Mil Tech:** 20%
State Population: 1,100,000 (1.9 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 2 / 54
Change in Ranking from FY17: UP 16

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	82	88	77–94
Dental readiness classification (% ready)	90	94	87–97
Hearing (% with significant threshold shift)	5.8	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.1	5.1	2.7–11
Depression (% with self-reported symptoms)	2.0	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.3	1.8	0.41–4.1
Hazardous alcohol use (%)	6.8	5.7	1.5–16
Smoking tobacco use (%)	11	13	2.8–20
Smokeless tobacco use (%)	7.5	13	0.7–23
Obesity (%)	21	24	14–32
Flagged for weight (%)	4.8	4.9	1.7–8.1
APFT failure (%)	9.3	13	5.1–19
Hypertension (%)	4.9	6.0	3.3–11

ARNG Health Index Score*** **≥90th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

South Carolina

Army National Guard

Profile (2018)*

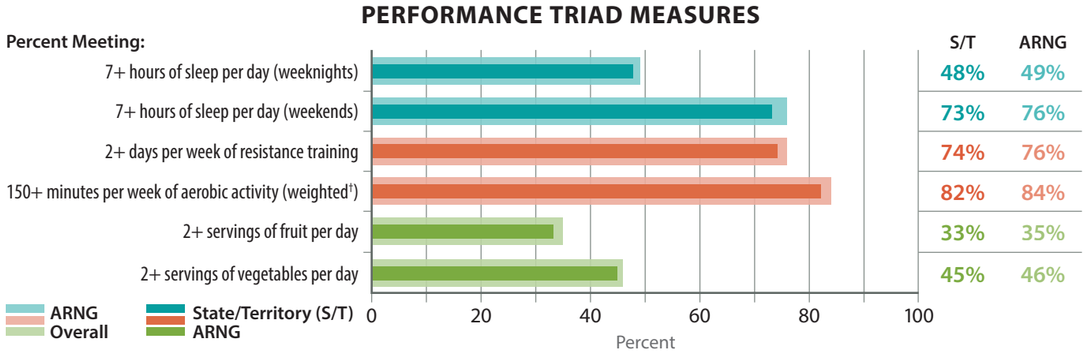
End-Strength: 9,300 (20% Female) **AGR/Mil Tech:** 17%
State Population: 5,100,000 (1.8 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 46 / 54
Change in Ranking from FY17: DOWN 10

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	88	88	77–94
Dental readiness classification (% ready)	93	94	87–97
Hearing (% with significant threshold shift)	3.5	6.1	2.4–12
PTSD (% with self-reported symptoms)	6.8	5.1	2.7–11
Depression (% with self-reported symptoms)	4.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.2	1.8	0.41–4.1
Hazardous alcohol use (%)	4.6	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	12	13	0.7–23
Obesity (%)	28	24	14–32
Flagged for weight (%)	5.5	4.9	1.7–8.1
APFT failure (%)	15	13	5.1–19
Hypertension (%)	8.0	6.0	3.3–11

ARNG Health Index Score*** **10–19th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

South Dakota

Army National Guard

Profile (2018)*

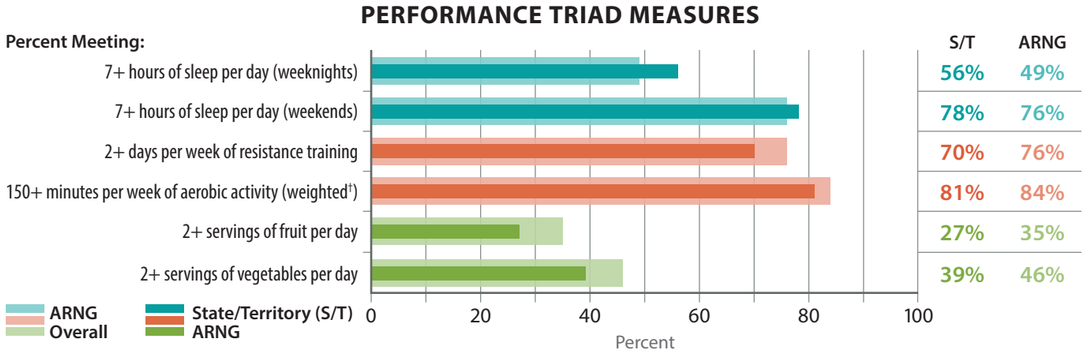
End-Strength: 3,200 (17% Female) **AGR/Mil Tech:** 17%
State Population: 880,000 (3.6 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 7 / 54
Change in Ranking from FY17: DOWN 3

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	89	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift)	3.8	6.1	2.4–12
PTSD (% with self-reported symptoms)	3.1	5.1	2.7–11
Depression (% with self-reported symptoms)	2.4	3.8	2.0–6.4
Tested positive for illegal drug use (%)	0.71	1.8	0.41–4.1
Hazardous alcohol use (%)	5.0	5.7	1.5–16
Smoking tobacco use (%)	12	13	2.8–20
Smokeless tobacco use (%)	20	13	0.7–23
Obesity (%)	20	24	14–32
Flagged for weight (%)	3.4	4.9	1.7–8.1
APFT failure (%)	7.6	13	5.1–19
Hypertension (%)	6.6	6.0	3.3–11

ARNG Health Index Score*** **80–89th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Tennessee

Army National Guard

Profile (2018)*

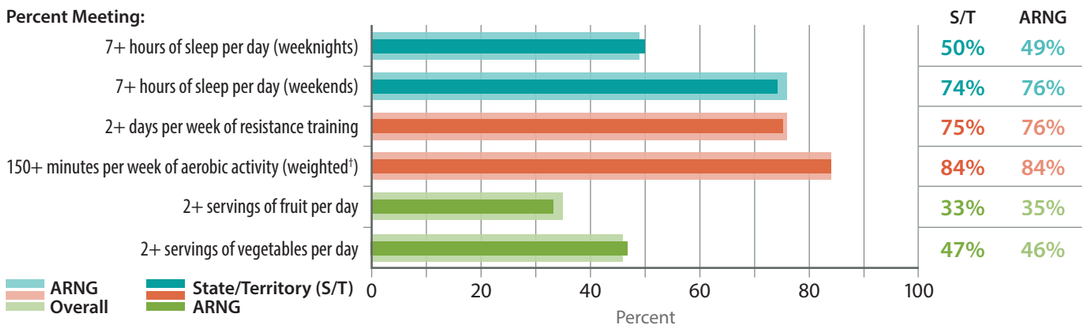
End-Strength: 9,100 (15% Female) **AGR/Mil Tech:** 15%
State Population: 6,800,000 (1.3 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 42 / 54
Change in Ranking from FY17: DOWN 4

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	86	88	77–94
Dental readiness classification (% ready)	92	94	87–97
Hearing (% with significant threshold shift)	7.4	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.4	5.1	2.7–11
Depression (% with self-reported symptoms)	4.3	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.7	1.8	0.41–4.1
Hazardous alcohol use (%)	5.2	5.7	1.5–16
Smoking tobacco use (%)	16	13	2.8–20
Smokeless tobacco use (%)	19	13	0.7–23
Obesity (%)	27	24	14–32
Flagged for weight (%)	4.9	4.9	1.7–8.1
APFT failure (%)	13	13	5.1–19
Hypertension (%)	9.6	6.0	3.3–11

ARNG Health Index Score*** **20–29th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

Texas

Army National Guard

Profile (2018)*

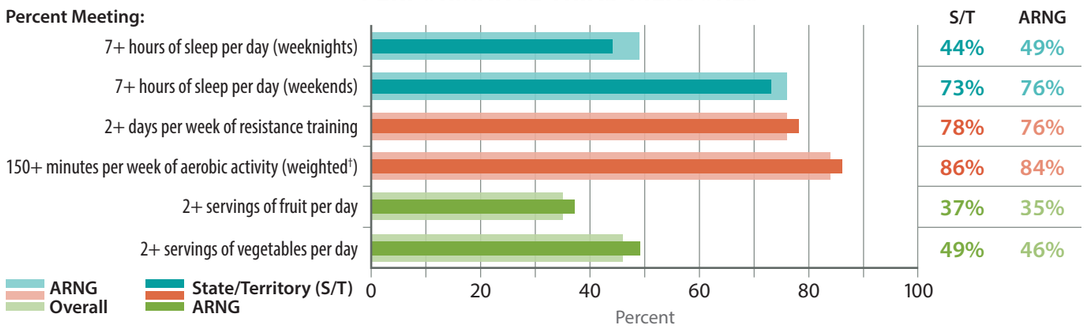
End-Strength: 18,000 (18% Female) **AGR/Mil Tech:** 14%
State Population: 29,000,000 (0.6 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 35 / 54
Change in Ranking from FY17: UP 17

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	81	88	77–94
Dental readiness classification (% ready)	90	94	87–97
Hearing (% with significant threshold shift)	6.7	6.1	2.4–12
PTSD (% with self-reported symptoms)	7.3	5.1	2.7–11
Depression (% with self-reported symptoms)	5.5	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.8	1.8	0.41–4.1
Hazardous alcohol use (%)	6.8	5.7	1.5–16
Smoking tobacco use (%)	12	13	2.8–20
Smokeless tobacco use (%)	11	13	0.7–23
Obesity (%)	27	24	14–32
Flagged for weight (%)	5.0	4.9	1.7–8.1
APFT failure (%)	11	13	5.1–19
Hypertension (%)	6.6	6.0	3.3–11

ARNG Health Index Score*** **30–39th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
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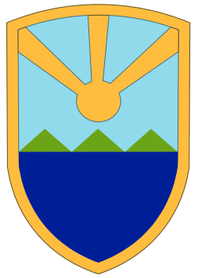
† Please see page 42 for a description of the aerobic activity target.

U.S. Virgin Islands

Army National Guard



Profile (2018)*

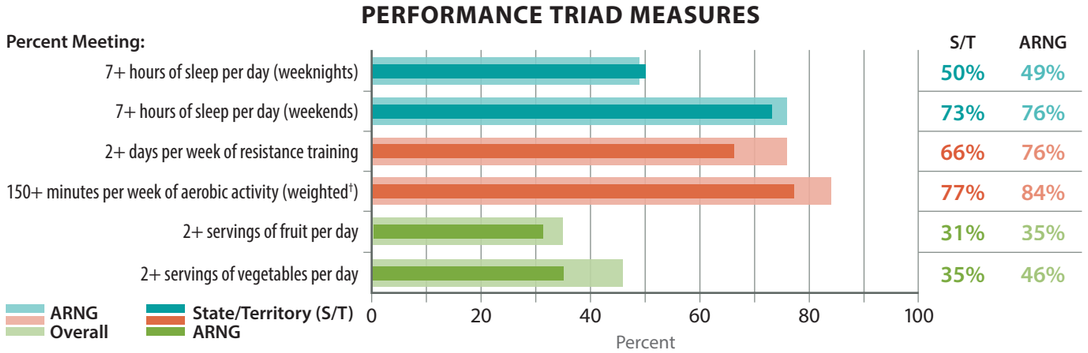
End-Strength: 660 (39% Female) **AGR/Mil Tech:** 30%
State Population: 100,000 (6.3 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 3 / 54
Change in Ranking from FY17: NO CHANGE

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	90	88	77–94
Dental readiness classification (% ready)	95	94	87–97
Hearing (% with significant threshold shift)	5.1	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.6	5.1	2.7–11
Depression (% with self-reported symptoms)	2.3	3.8	2.0–6.4
Tested positive for illegal drug use (%)	0.46	1.8	0.41–4.1
Hazardous alcohol use (%)	1.5	5.7	1.5–16
Smoking tobacco use (%)	2.8	13	2.8–20
Smokeless tobacco use (%)	0.7	13	0.7–23
Obesity (%)	26	24	14–32
Flagged for weight (%)	5.4	4.9	1.7–8.1
APFT failure (%)	16	13	5.1–19
Hypertension (%)	11	6.0	3.3–11

ARNG Health Index Score*** **≥90th percentile**

PERFORMANCE TRIAD MEASURES



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† Please see page 42 for a description of the aerobic activity target.

Utah

Army National Guard

Profile (2018)*

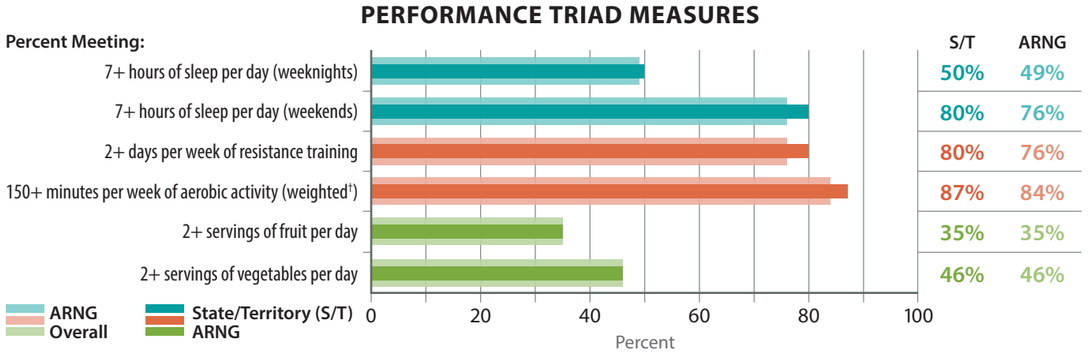
End-Strength: 5,500 (9.9% Female) **AGR/Mil Tech:** 18%
State Population: 3,200,000 (1.7 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 1 / 54
Change in Ranking from FY17: NO CHANGE

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	91	88	77–94
Dental readiness classification (% ready)	97	94	87–97
Hearing (% with significant threshold shift)	2.4	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.2	5.1	2.7–11
Depression (% with self-reported symptoms)	3.3	3.8	2.0–6.4
Tested positive for illegal drug use (%)	0.81	1.8	0.41–4.1
Hazardous alcohol use (%)	3.0	5.7	1.5–16
Smoking tobacco use (%)	5.0	13	2.8–20
Smokeless tobacco use (%)	8.8	13	0.7–23
Obesity (%)	18	24	14–32
Flagged for weight (%)	2.4	4.9	1.7–8.1
APFT failure (%)	5.1	13	5.1–19
Hypertension (%)	5.3	6.0	3.3–11

ARNG Health Index Score*** **≥90th percentile**

PERFORMANCE TRIAD MEASURES



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† Please see page 42 for a description of the aerobic activity target.

Vermont
Army National Guard

Profile (2018)*

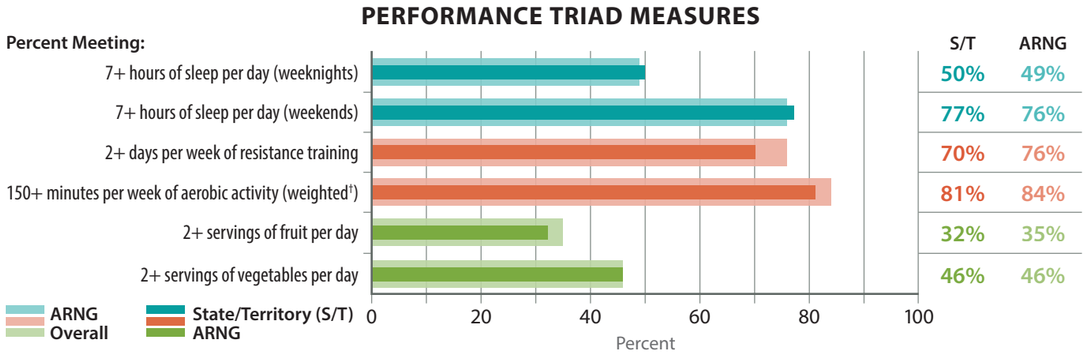
End-Strength: 2,400 (14% Female) **AGR/Mil Tech:** 20%
State Population: 630,000 (3.8 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 28 / 54
Change in Ranking from FY17: UP 18

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	85	88	77–94
Dental readiness classification (% ready)	92	94	87–97
Hearing (% with significant threshold shift)	8.2	6.1	2.4–12
PTSD (% with self-reported symptoms)	4.6	5.1	2.7–11
Depression (% with self-reported symptoms)	3.6	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.5	1.8	0.41–4.1
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	14	13	0.7–23
Obesity (%)	28	24	14–32
Flagged for weight (%)	7.3	4.9	1.7–8.1
APFT failure (%)	11	13	5.1–19
Hazardous alcohol use (%)	8.4	5.7	1.5–16
Hypertension (%)	6.9	6.0	3.3–11

ARNG Health Index Score*** **40–49th percentile**

PERFORMANCE TRIAD MEASURES



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† Please see page 42 for a description of the aerobic activity target.

Virginia
Army National Guard

Profile (2018)*

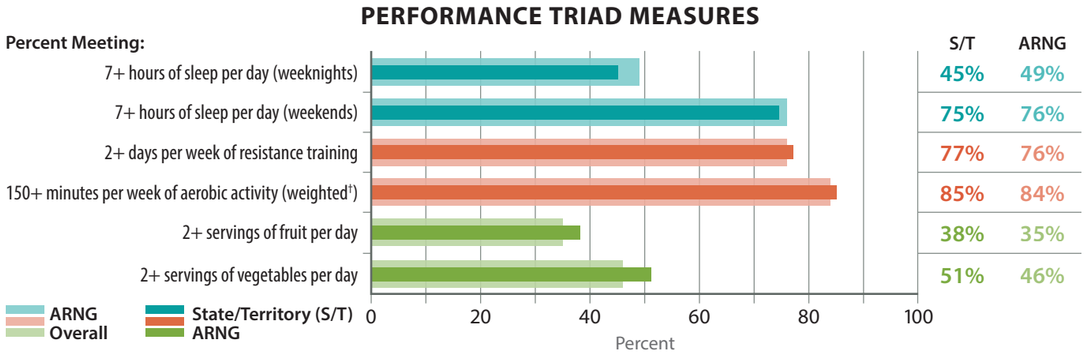
End-Strength: 7,700 (17% Female) **AGR/Mil Tech:** 17%
State Population: 8,500,000 (0.8 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 21 / 54
Change in Ranking from FY17: UP 10

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	83	88	77–94
Dental readiness classification (% ready)	89	94	87–97
Hearing (% with significant threshold shift)	XX	6.1	2.4–12
PTSD (% with self-reported symptoms)	6.1	5.1	2.7–11
Depression (% with self-reported symptoms)	4.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	2.4	1.8	0.41–4.1
Hazardous alcohol use (%)	7.0	5.7	1.5–16
Smoking tobacco use (%)	12	13	2.8–20
Smokeless tobacco use (%)	12	13	0.7–23
Obesity (%)	25	24	14–32
Flagged for weight (%)	2.8	4.9	1.7–8.1
APFT failure (%)	9.8	13	5.1–19
Hypertension (%)	7.5	6.0	3.3–11

ARNG Health Index Score*** **70–79th percentile**

PERFORMANCE TRIAD MEASURES



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† Please see page 42 for a description of the aerobic activity target.

Washington
Army National Guard

Profile (2018)*

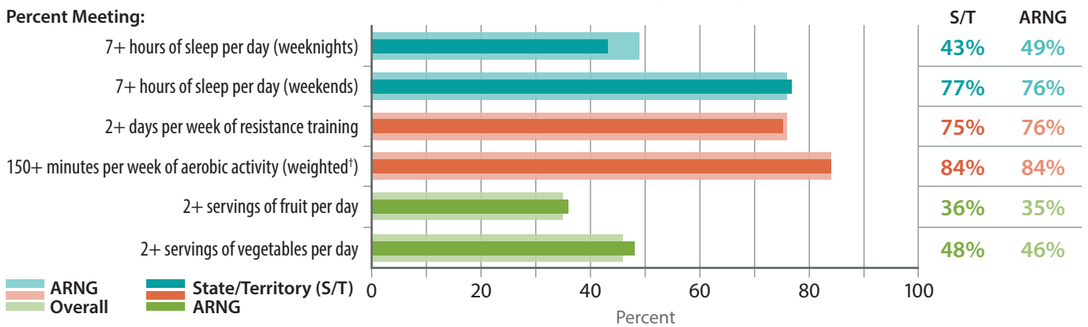
End-Strength: 5,600 (16% Female) **AGR/Mil Tech:** 15%
State Population: 7,500,000 (0.7 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 43 / 54
Change in Ranking from FY17: UP 4

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	84	88	77–94
Dental readiness classification (% ready)	91	94	87–97
Hearing (% with significant threshold shift)	12	6.1	2.4–12
PTSD (% with self-reported symptoms)	7.2	5.1	2.7–11
Depression (% with self-reported symptoms)	5.3	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.3	1.8	0.41–4.1
Hazardous alcohol use (%)	7.1	5.7	1.5–16
Smoking tobacco use (%)	12	13	2.8–20
Smokeless tobacco use (%)	13	13	0.7–23
Obesity (%)	22	24	14–32
Flagged for weight (%)	6.7	4.9	1.7–8.1
APFT failure (%)	12	13	5.1–19
Hypertension (%)	7.4	6.0	3.3–11

ARNG Health Index Score*** **20–29th percentile**

PERFORMANCE TRIAD MEASURES



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** See Appendix I for details regarding measure computations.
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† Please see page 42 for a description of the aerobic activity target.

West Virginia
Army National Guard

Profile (2018)*

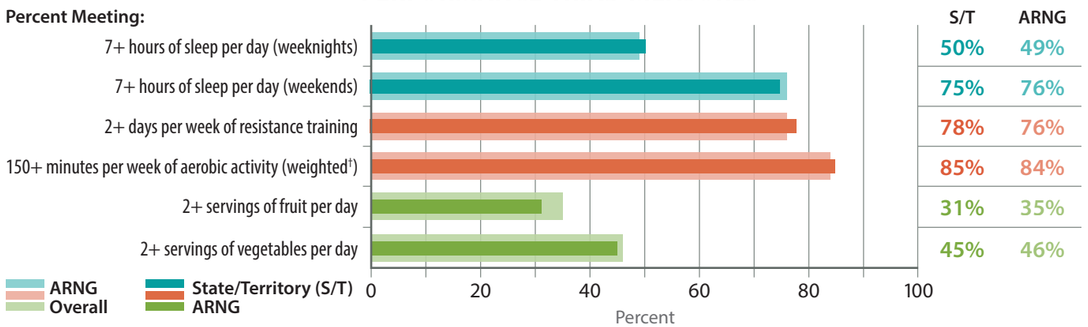
End-Strength: 4,100 (13% Female) **AGR/Mil Tech:** 19%
State Population: 1,800,000 (2.3 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 41 / 54
Change in Ranking from FY17: DOWN 20

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	92	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift)	4.1	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.2	5.1	2.7–11
Depression (% with self-reported symptoms)	3.6	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.2	1.8	0.41–4.1
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	23	13	0.7–23
Obesity (%)	23	24	14–32
Flagged for weight (%)	6.0	4.9	1.7–8.1
APFT failure (%)	16	13	5.1–19
Hazardous alcohol use (%)	5.6	5.7	1.5–16
Hypertension (%)	7.5	6.0	3.3–11

ARNG Health Index Score*** **20–29th percentile**

PERFORMANCE TRIAD MEASURES



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† Please see page 42 for a description of the aerobic activity target.

Wisconsin
Army National Guard

Profile (2018)*

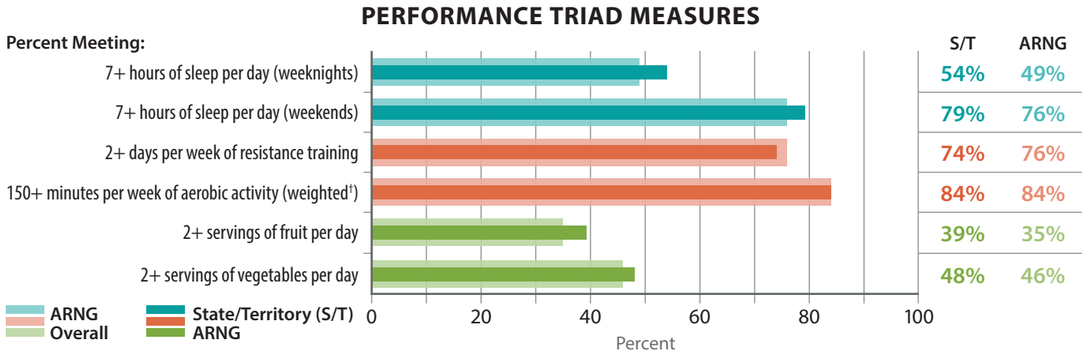
End-Strength: 7,200 (20% Female) **AGR/Mil Tech:** 14%
State Population: 5,800,000 (1.2 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 8 / 54
Change in Ranking from FY17: DOWN 3

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	90	88	77–94
Dental readiness classification (% ready)	96	94	87–97
Hearing (% with significant threshold shift)	5.8	6.1	2.4–12
PTSD (% with self-reported symptoms)	2.7	5.1	2.7–11
Depression (% with self-reported symptoms)	2.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.6	1.8	0.41–4.1
Hazardous alcohol use (%)	2.7	5.7	1.5–16
Smoking tobacco use (%)	11	13	2.8–20
Smokeless tobacco use (%)	13	13	0.7–23
Obesity (%)	15	24	14–32
Flagged for weight (%)	4.4	4.9	1.7–8.1
APFT failure (%)	10	13	5.1–19
Hypertension (%)	4.0	6.0	3.3–11

ARNG Health Index Score*** **80–89th percentile**

PERFORMANCE TRIAD MEASURES



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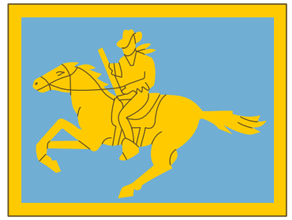
† Please see page 42 for a description of the aerobic activity target.

Wyoming
Army National Guard



Profile (2018)*

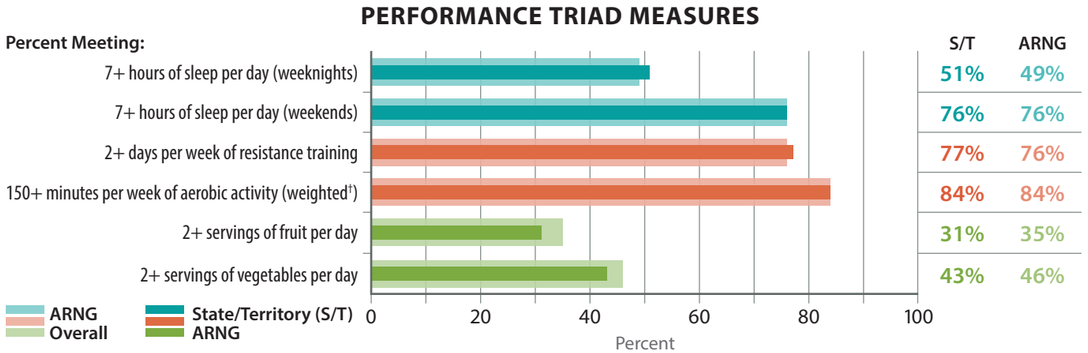
End-Strength: 1,500 (15% Female) **AGR/Mil Tech:** 22%
State Population: 580,000 (2.6 ARNG Soldiers per 1,000 population)
ARNG Health Index Ranking: 17 / 54
Change in Ranking from FY17: DOWN 2

ARNG HEALTH INDEX MEASURES**

MEASURE	VALUE	AVERAGE ARNG VALUE	ARNG VALUE RANGE
Medical readiness classification (% ready)	86	88	77–94
Dental readiness classification (% ready)	94	94	87–97
Hearing (% with significant threshold shift)	4.9	6.1	2.4–12
PTSD (% with self-reported symptoms)	5.0	5.1	2.7–11
Depression (% with self-reported symptoms)	3.1	3.8	2.0–6.4
Tested positive for illegal drug use (%)	1.2	1.8	0.41–4.1
Hazardous alcohol use (%)	7.4	5.7	1.5–16
Smoking tobacco use (%)	13	13	2.8–20
Smokeless tobacco use (%)	22	13	0.7–23
Obesity (%)	20	24	14–32
Flagged for weight (%)	4.9	4.9	1.7–8.1
APFT failure (%)	12	13	5.1–19
Hypertension (%)	5.8	6.0	3.3–11

ARNG Health Index Score*** **60–69th percentile**

PERFORMANCE TRIAD MEASURES



* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.
** See Appendix I for details regarding measure computations.
***The Health Index Score is a composite of all listed measures in relation to the ARNG averages; percentile ranges represent where a State/Territory ranks (higher percentiles reflect better ranking installations).
† Please see page 42 for a description of the aerobic activity target.

At a glance...

Profiles (2018)*

	End-Strength	Female Population (%)	AGR/Mil Tech (%)	State Population	ARNG Soldiers per 1,000 population	Health Index Ranking	Change in Rank from FY17
Alabama	10,000	19	17	4,900,000	2.1	49 / 54	DOWN 20
Alaska	1,600	17	38	740,000	2.2	18 / 54	UP 17
Arizona	5,200	16	19	7,200,000	0.7	13 / 54	NO CHANGE
Arkansas	6,600	16	15	3,000,000	2.2	51 / 54	DOWN 3
California	13,000	17	17	40,000,000	0.3	5 / 54	UP 37
Colorado	3,800	17	21	5,700,000	0.7	12 / 54	UP 4
Connecticut	3,500	18	22	3,600,000	1.0	14 / 54	DOWN 7
Delaware	1,500	21	23	970,000	1.6	29 / 54	UP 3
District of Columbia	1,300	29	22	700,000	1.8	4 / 54	UP 19
Florida	9,300	17	15	21,000,000	0.4	22 / 54	DOWN 11
Georgia	11,000	23	12	11,000,000	1.1	48 / 54	UP 1
Guam	1,100	19	21	160,000	6.7	54 / 54	NO CHANGE
Hawaii	3,000	18	16	1,400,000	2.1	30 / 54	DOWN 16
Idaho	3,100	14	27	1,800,000	1.8	15 / 54	DOWN 6
Illinois	9,900	20	12	13,000,000	0.8	39 / 54	DOWN 13
Indiana	12,000	17	13	6,700,000	1.7	44 / 54	DOWN 11
Iowa	6,600	16	16	3,200,000	2.1	23 / 54	DOWN 4
Kansas	4,300	15	21	2,900,000	1.5	40 / 54	UP 3
Kentucky	6,500	13	16	4,500,000	1.4	33 / 54	UP 4
Louisiana	9,800	22	15	4,700,000	2.1	53 / 54	NO CHANGE
Maine	1,900	14	21	1,300,000	1.5	32 / 54	DOWN 8
Maryland	4,600	17	17	6,000,000	0.8	19 / 54	UP 8
Massachusetts	5,900	16	15	6,900,000	0.9	36 / 54	DOWN 2
Michigan	8,000	17	16	10,000,000	0.8	45 / 54	NO CHANGE
Minnesota	11,000	18	12	5,600,000	1.9	38 / 54	DOWN 10
Mississippi	9,600	17	17	3,000,000	3.2	27 / 54	UP 24
Missouri	9,200	16	16	6,000,000	1.5	26 / 54	UP 4

* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.

Profiles (2018)*

	End-Strength	Female Population (%)	AGR/Mil Tech (%)	State Population	ARNG Soldiers per 1,000 population	Health Index Ranking	Change in Rank from FY17
Montana	2,500	18	19	1,100,000	2.3	9 / 54	UP 11
Nebraska	3,200	15	20	1,900,000	1.7	25 / 54	NO CHANGE
Nevada	3,100	22	16	3,000,000	1.0	6 / 54	NO CHANGE
New Hampshire	1,600	13	21	1,400,000	1.2	37 / 54	DOWN 15
New Jersey	6,000	18	15	8,900,000	0.7	11 / 54	DOWN 1
New Mexico	2,700	20	16	2,100,000	1.3	47 / 54	DOWN 8
New York	9,900	17	14	20,000,000	0.5	20 / 54	DOWN 8
North Carolina	10,000	19	15	10,000,000	1.0	34 / 54	UP 10
North Dakota	2,900	19	21	760,000	3.8	31 / 54	DOWN 14
Ohio	12,000	19	12	12,000,000	1.0	16 / 54	DOWN 8
Oklahoma	6,600	17	15	3,900,000	1.7	52 / 54	DOWN 11
Oregon	5,500	15	16	4,200,000	1.3	50 / 54	NO CHANGE
Pennsylvania	15,000	18	15	13,000,000	1.2	24 / 54	UP 16
Puerto Rico	6,000	13	15	3,200,000	1.9	10 / 54	DOWN 8
Rhode Island	2,000	15	20	1,100,000	1.9	2 / 54	UP 16
South Carolina	9,300	20	17	5,100,000	1.8	46 / 54	DOWN 10
South Dakota	3,200	17	17	880,000	3.6	7 / 54	DOWN 3
Tennessee	9,100	15	15	6,800,000	1.3	42 / 54	DOWN 4
Texas	18,000	18	14	29,000,000	0.6	35 / 54	UP 17
U.S. Virgin Islands	660	39	30	100,000	6.3	3 / 54	NO CHANGE
Utah	5,500	9.9	18	3,200,000	1.7	1 / 54	NO CHANGE
Vermont	2,400	14	20	630,000	3.8	28 / 54	UP 18
Virginia	7,700	17	17	8,500,000	0.8	21 / 54	UP 10
Washington	5,600	16	15	7,500,000	0.7	43 / 54	UP 4
West Virginia	4,100	13	19	1,800,000	2.3	41 / 54	DOWN 20
Wisconsin	7,200	20	14	5,800,000	1.2	8 / 54	DOWN 3
Wyoming	1,500	15	22	580,000	2.6	17 / 54	DOWN 2

* Population statistics provide approximations of ARNG Soldiers based on time assigned; refer to Appendix I for details.

ARNG Health Index Measures

State/ Territory	Medical readiness classification (% ready)	Dental readiness classification (% ready)	PTSD (% with self-reported symptoms)	Hearing Significant Threshold Shift (%)	Depression (% with self-reported symptoms)	Tested positive for illegal drug use (%)	Smoking tobacco use (%)	Smokeless tobacco use (%)	Obesity(%)	Flagged for weight (%)	APFT failure (%)	Hazardous alcohol use (%)	Hypertension (%)	Health Index Score
AL	89	94	6.1	12	4.4	1.8	13	15	24	3.4	14	5.2	10	<10th
AK	89	94	5.0	6.4	4.1	1.4	12	18	20	4.5	8.8	5.0	8.2	60–69th
AZ	85	91	5.4	6.3	4.1	1.2	9.9	11	20	3.3	11	5.8	4.5	70–79th
AR	90	97	5.1	6.9	4.0	2.5	16	16	25	5.7	15	6.3	6.9	<10th
CA	82	88	5.0	5.8	3.7	1.5	9.5	6.8	27	4.0	9.2	4.2	4.9	≥90th
CO	86	95	5.8	5.5	3.9	1.4	10	14	18	3.0	7.3	5.0	6.2	70–79th
CT	89	94	5.0	4.0	3.1	1.3	10	6.9	22	6.4	12	4.1	4.2	70–79th
DE	90	95	4.1	5.4	3.1	1.6	11	7.6	26	4.8	14	4.1	9.9	40–49th
DC	86	91	3.7	5.1	2.8	1.4	9.5	3.7	15	4.0	14	5.1	3.7	≥90th
FL	87	94	4.7	9.8	3.7	1.3	9.2	10	24	3.4	12	4.6	6.5	50–59th
GA	84	90	7.2	6.5	5.6	2.6	13	12	24	4.0	14	6.4	6.9	10–19th
GU	91	96	11	8.4	5.9	1.0	20	22	32	4.2	8.5	16	7.1	<10th
HI	91	95	3.7	5.4	3.4	1.6	12	9.4	28	3.4	11	7.9	7.4	40–49th
ID	89	96	5.3	3.0	4.0	1.4	11	16	22	2.4	6.2	6.3	7.0	70–79th
IL	91	96	2.7	11	2.3	2.1	13	9.4	21	3.4	12	6.1	3.3	20–29th
IN	89	97	4.0	3.4	3.5	3.8	16	17	24	7.6	15	5.5	4.8	10–19th
IA	89	95	3.4	6.1	2.4	1.4	14	18	22	5.3	12	5.9	3.5	50–59th
KS	87	94	4.7	4.1	3.7	1.3	17	19	30	7.8	14	6.8	8.1	20–29th
KY	88	94	4.2	5.4	3.1	2.0	13	19	21	4.4	16	4.9	5.7	30–39th
LA	84	92	8.2	8.5	6.4	4.1	18	13	26	4.9	19	7.4	6.9	<10th
ME	90	96	4.9	3.9	3.1	1.2	14	14	27	6.0	13	5.2	6.0	40–49th
MD	90	95	5.2	4.2	3.3	0.66	12	8.0	23	3.7	10	4.9	9.1	60–69th
MA	92	95	5.0	6.8	3.0	2.2	11	7.2	25	5.6	13	5.5	4.2	30–39th
MI	89	94	4.4	6.3	3.6	2.3	15	15	24	7.2	17	5.1	5.3	10–19th
MN	91	96	4.0	6.5	3.1	1.2	13	18	18	6.5	15	7.4	3.4	20–29th
MS	77	87	5.2	6.2	4.4	1.9	16	15	29	3.9	16	4.8	8.2	50–59th
MO	86	92	3.6	7.0	2.8	2.2	15	18	23	5.3	15	5.5	6.3	50–59th

ARNG Health Index Measures

State/ Territory	Medical readiness classification (% ready)	Dental readiness classification (% ready)	PTSD (% with self-reported symptoms)	Hearing Significant Threshold Shift (%)	Depression (% with self-reported symptoms)	Tested positive for illegal drug use (%)	Smoking tobacco use (%)	Smokeless tobacco use (%)	Obesity(%)	Flagged for weight (%)	APFT failure (%)	Hazardous alcohol use (%)	Hypertension (%)	Health Index Score
MT	86	93	5.1	4.9	4.1	0.70	11	21	14	4.3	8.5	7.8	5.3	80–89th
NE	89	94	4.5	7.2	3.1	1.1	12	20	18	5.3	11	11	4.2	50–59th
NV	86	94	3.9	3.4	3.1	1.4	8.4	9.4	20	5.0	10	3.9	3.7	80–89th
NH	92	96	5.2	5.7	3.4	1.4	11	12	21	3.4	11	8.4	4.6	30–39th
NJ	85	93	2.8	3.6	2.5	2.2	11	6.9	27	4.7	13	3.2	5.5	80–89th
NM	92	96	6.4	5.0	4.4	1.4	9.9	13	24	4.3	12	7.4	5.5	10–19th
NY	88	95	3.5	6.2	2.9	1.5	13	8.5	25	5.7	12	5.1	4.2	60–69th
NC	85	91	6.2	6.8	4.3	2.0	13	13	25	4.7	13	5.4	6.2	30–39th
ND	94	97	3.8	2.5	2.4	0.41	13	18	24	6.5	12	10	6.2	40–49th
OH	85	93	3.1	5.2	2.9	1.8	11	16	22	4.7	13	5.1	3.8	70–79th
OK	90	96	7.3	4.9	5.0	2.6	13	19	24	8.1	16	5.6	8.0	<10th
OR	89	94	7.9	5.7	6.1	2.4	12	17	23	5.8	13	8.5	6.3	<10th
PA	84	91	3.9	6.4	3.4	2.1	14	14	23	5.6	16	5.0	4.5	50–59th
PR	90	96	4.2	3.9	3.6	1.2	9.7	1.9	29	1.7	5.3	4.4	9.1	80–89th
RI	82	90	4.1	5.8	2.0	1.3	11	7.5	21	4.8	9.3	6.8	4.9	≥90th
SC	88	93	6.8	3.5	4.4	2.2	13	12	28	5.5	15	4.6	8.0	10–19th
SD	89	96	3.1	3.8	2.4	0.71	12	20	20	3.4	7.6	5.0	6.6	80–89th
TN	86	92	5.4	7.4	4.3	1.7	16	19	27	4.9	13	5.2	9.6	20–29th
TX	81	90	7.3	6.7	5.5	1.8	12	11	27	5.0	11	6.8	6.6	30–39th
VI	90	95	4.6	5.1	2.3	0.46	2.8	0.7	25	5.4	16	1.5	11	≥90th
UT	91	97	4.2	2.4	3.3	0.81	5.0	8.8	18	2.4	5.1	3.0	5.3	≥90th
VT	85	92	4.6	8.2	3.6	1.5	13	14	28	7.3	11	8.4	6.9	40–49th
VA	83	89	6.1	XX	4.1	2.4	12	12	25	2.8	9.8	7.0	7.5	70–79th
WA	84	91	7.2	12	5.3	1.3	12	13	22	6.7	12	7.1	7.4	20–29th
WV	92	96	5.2	4.1	3.6	1.2	13	23	23	6.0	16	5.6	7.5	20–29th
WI	90	96	2.7	5.8	2.1	1.6	11	13	15	4.4	10	2.7	4.0	80–89th
WY	86	94	5.0	4.9	3.1	1.2	13	22	20	4.9	12	7.4	5.8	60–69th

Performance Triad Measures

State/ Territory	7+ hours of sleep [weeknights] (%)	7+ hours of sleep [weekends] (%)	2+ days per week of resistance training (%)	150+ minutes per week of aerobic activity* (%)	2+ servings of fruits per day (%)	2+ servings of vegetables per day (%)
AL	47	71	72	81	29	41
AK	49	79	75	85	32	43
AZ	48	76	78	87	34	46
AR	50	76	76	85	33	46
CA	46	75	78	86	37	49
CO	52	80	80	86	38	51
CT	53	77	76	83	35	45
DE	52	76	76	82	35	43
DC	45	73	75	81	38	51
FL	50	74	79	86	36	48
GA	44	72	76	84	37	48
GU	29	57	79	88	30	40
HI	41	70	76	83	30	41
ID	47	78	76	86	29	45
IL	51	77	78	85	37	46
IN	49	77	75	86	37	47
IA	53	78	74	85	34	43
KS	46	73	73	82	29	43
KY	48	74	76	85	34	46
LA	45	72	72	85	34	45
ME	51	74	72	82	37	50
MD	44	76	77	84	38	52
MA	50	75	78	84	37	49
MI	47	75	72	83	35	43
MN	52	80	73	83	34	42
MS	49	71	78	85	35	47
MO	54	78	76	85	36	51
ARNG	49	76	76	84	35	46

* Please see page 42 for a description of the aerobic activity target.

Performance Triad Measures

State/ Territory	7+ hours of sleep [weeknights] (%)	7+ hours of sleep [weekends] (%)	2+ days per week of resistance training (%)	150+ minutes per week of aerobic activity * (%)	2+ servings of fruits per day (%)	2+ servings of vegetables per day (%)
MT	54	79	75	88	33	42
NE	52	77	75	83	34	44
NV	51	78	80	86	35	43
NH	51	76	74	85	38	48
NJ	51	77	80	87	38	48
NM	51	75	82	88	33	43
NY	48	76	77	84	37	47
NC	48	74	77	84	36	48
ND	56	80	68	82	33	43
OH	51	78	78	86	37	48
OK	46	73	74	83	30	44
OR	48	74	73	82	32	44
PA	52	77	76	84	35	46
PR	49	75	78	81	32	35
RI	47	70	76	87	36	49
SC	48	73	74	82	33	45
SD	56	78	70	81	27	39
TN	50	74	75	84	33	47
TX	44	73	78	86	37	49
VI	50	73	66	77	31	35
UT	50	80	80	87	35	46
VT	50	77	70	81	32	46
VA	45	75	77	85	38	51
WA	43	77	75	84	36	48
WV	50	75	78	85	31	45
WI	54	79	74	84	39	48
WY	51	76	77	84	31	43
ARNG	49	76	76	84	35	46

* Please see page 42 for a description of the aerobic activity target.

APPENDICES

- *Methods*
- *Acknowledgments*
- *References*

METHODS

AGR Soldiers are U.S. Army Reserve (USAR) or Army National Guard (ARNG) Soldiers who serve full-time according to Army Regulation (AR) 135–18, *The Active Guard Reserve Program* (DA, 2019a). Thus, AGR Soldiers serve in the same manner as Active Component (AC) Soldiers (Title 10 U.S.C.). There are two types of AGR Soldiers in the ARNG:

a. Title 10 AGR Soldiers serve in the Army National Guard of the United States, are managed by the National Guard Bureau, and are deployed worldwide.

b. Title 32 AGR, also referred to as Full Time National Guard Duty (FTNGD), serve in the National Guard of the 50 U.S. States, three Territories, and the District of Columbia and are covered under Title 32 U.S.C., section 502(f). As members of Modification Table of Organization and Equipment units or Table of Distribution and Allowances elements, they also drill 2 days per month and attend annual training (AT) with the unit or organization they support.

National Guard Dual-Status Technicians (Military Technician, or Mil Tech, Soldiers) are civilians who work full-time for the National Guard (hired as State/Territory employees) and must also be members of the ARNG, thus their dual status. Their jobs range from weapon system and equipment maintainers to clerical and support workers. Like Traditional ARNG Soldiers, Mil Techs are in an ARNG Soldier duty status only 39 days per year (unless otherwise mobilized for a State/Federal mission).

Traditional Soldiers (TS) refers to the vast majority of National Guardsmen who drill 2 days a month (typically over a weekend) and complete 2 weeks of AT. TS are obligated to complete 39 total training days per year (i.e., 2 drill periods/month x 12 months +15 days AT). TS may be in uniform and pay status for more than 39 days throughout the year for professional school attendance, mandatory/elective training, military occupational specialty (MOS) sustainment training, or mobilization (i.e., called up for State (Title 32) or Federal (Title 10) missions).

States/Territories will be used throughout this publication when referring to the 50 U.S. States, 3 Territories, and the District of Columbia.

Age for Traditional, AGR, and Mil Tech Soldiers was obtained from a personnel roster supplied by the ARNG. Social Security Numbers (SSN) were then merged with Periodic Health Assessment (PHA) data. Only those Soldiers with matching SSNs from both the personnel roster and PHA were considered. AGR and Mil Tech Soldiers were combined into a single group as they are deemed similar in terms of health risks. Distributions and means were reported.

Medical Readiness and Dental Readiness were reported as annual averages calculated from monthly counts for each of the States/Territories. Readiness data were furnished by the ARNG, which reported readiness by State, Territory, and Area for Medical Readiness Classification (MRC) 3 or 4; and Dental Readiness Classification (DRC) 3 or 4. The calculation for "percent not medically ready within 72 hours" was the sum of the annual averages of MRC3 and MRC4. No data were reported for permanent profiles.

Health Metrics by State were reported from the PHA self-reported questionnaire. One survey response per individual (the most recent) was retained for analysis. Soldier body mass index (BMI) was calculated from PULHES height and weight data in the PHA using weight in kilograms/height in meters. Overweight was defined as a BMI ≥25 and <30; obesity was defined as a BMI ≥30. However, Army studies have demonstrated that up to 20% of Soldiers with BMIs between 25 and 28 are not "overweight" due to excess body fat but rather have increased muscle mass. *The Army Body Composition Program* (ABCP), AR 600-9 (DA, 2019d), takes this into account and also adjusts height/weight standards for age and sex (e.g., a 40-year old male Soldier can have a BMI of 27.5 and be in compliance). Soldiers lacking a height and/or weight measurement were not included in the analysis. Calculated BMIs of <12 or >45 were deemed out of range and were not included in the analysis. Women who indicated on the PHA that they were pregnant were not included in the BMI analysis.

Table. Current U.S. Army BMI Thresholds and Percent Body Fat Standards

Age category (y)	Body mass index ($kg \bullet m^{-2}$)*	Relative body fat (%)
Men		
<21	25.9	20
21–27	26.5	22
28–39	27.2	24
>40**	27.5	26
Women		
<21	25.0	30
21–27	25.3	32
28–39	25.6	34
>40**	26.0	36

* The AR uses tabled values rounded from these BMI thresholds (AR 600–9).

** The upper limits of BMI permitted in DODI 1308.3, *DOD Physical Fitness and Body Fat Programs Procedures* (DOD, 2002) are 25–27.5 $kg \cdot m^{-2}$ for both sexes. Permissible body fat standards are 26–36% for women and 18–26% for men. Other military services use different age categories and limits within the permissible ranges.

Source: U.S. Army Public Health Center, Injury Prevention Division. Compiled based on AR 600–9 and DODI 1308.3.

Tobacco use (smoking: yes or no; smokeless: yes or no) was determined from PHA responses. APFT scores and the counts of Soldiers flagged for the ABCP were provided from the ARNG G1 LifeCycle database for each State by month, and averaged over FY17.

Behavioral health metrics were reported through two subsets of the PHA: the Patient Health Questionnaire Depression Scale (PHQ-8) and posttraumatic stress disorder (PTSD) Checklist–Civilian Version (PCL-C). The PHQ-8 assigned Soldiers a depression score of no depression (<5), sub-threshold symptoms (5–9), mild depression (10–14), moderate depression (15–18), or severe depression (19–24). The PTSD Checklist (PCL-C) assigned Soldiers a PTSD score of no PTSD (<30), mild PTSD (30–39), moderate PTSD (40–49), or severe PTSD (≥50).

For the *2019 Health of the ARNG Force* report, alcohol use habits were measured using the Alcohol Use Disorders Identification Test-Consumption (AUDIT-C), a standardized self-reported survey that is part of the Soldier's PHA questionnaire. The AUDIT-C asks Soldiers about the frequency and quantity of their alcohol consumption in order to assess the likelihood that their drinking is adversely affecting their safety. The AUDIT-C is a validated three-item screening tool, scored on a scale of 1–12, that may indicate hazardous alcohol use, which is distinct from an alcohol dependency disorder diagnosis. Soldiers who screen positive on the AUDIT-C may be referred for alcohol education, the Army Substance Abuse Program (ASAP), Army Substance Use Disorder Clinical Care, or similar interventions. The 2019 *Health of the ARNG Force* applies an AUDIT-C score of ≥5 in men and ≥4 in women for identifying hazardous drinking or alcohol use disorders in compliance with Department of Defense (DOD) recommendations.

Musculoskeletal duty-related injuries (MDRI) for FY18 were aggregated and collapsed into broad categories (sprains and strains, fractures, etc.) and reported by sex.

The hypertension metric was reported through the "Current Health" section of the PHA. It is at the discretion of the healthcare provider administering the annual PHA physical exam to flag a Soldier for hypertension according to the American College of Cardiology guidelines. (Normal blood pressure (BP) is defined as <120/<80 mm Hg; elevated BP 120-129/<80 mm Hg; hypertension stage 1 is 130–139 or 80–89 mm Hg, and hypertension stage 2 is ≥140 or ≥90 mm Hg).

Performance Triad (P3)/ Sleep, Activity, and Nutrition (SAN)

P3 measures (sleep, activity, and nutrition) were obtained in aggregate from the SHARP Ready & Resilient (SR2)-G1 in coordination with the Army Analytics Group. Estimates were derived from relevant survey items collected within the Physical Domain of the Global Assessment Tool (GAT). Soldiers are required to complete the GAT annually per AR 350–53 (DA, 2014). All GAT data were de-identified prior to analysis; these procedures follow policies to maintain the confidentiality and privacy of all individual-level responses on the assessment. Data were reported only when at least 40 responses were available as an aggregated summary statistic at the designated level of breakdown (e.g., installation, sex, and age group). In Calendar Year (CY) 18, 142,347 ARNG Soldiers completed the GAT, representing an approximate response rate of 47%.

The sleep, activity, and nutrition data presented in this report represent the percentage of Soldiers achieving recommended health behavior targets. These targets are based on vetted national recommendations.

Sleep targets were based on guidelines from the Centers for Disease Control and Prevention (CDC, 2018a) and the National Sleep Foundation (NSF, 2018). Targets include the percentage of Soldiers reporting an average of 7 or more hours of sleep per night for 1) weeknights and 2) weekends. Thus, the sleep metrics were based on GAT survey questions assessing self-reported average hours of sleep per 24-hour period during weeknights/duty nights and the self-reported average hours of sleep per 24-hour period during weekends/days off.

Activity targets were similarly based on CDC recommendations (CDC, 2018b). The first activity target included in this report is the percentage of Soldiers meeting resistance training of 2 or more days per week. Data for this metric are derived from a GAT survey question asking Soldiers to report the average number of days per week on which they participated in resistance training over the last 30 days. The second activity target relates to aerobic exercise; the target is met by engaging in 75 minutes of vigorous aerobic activity per week, or 150 minutes of moderate activity per week, or an equivalent combination of moderate and vigorous activity per week. The data for this metric are derived from a series of GAT questions asking about the average number of days per week in which the Soldier engaged in 1) vigorous activity and

2) moderate activity in the last 30 days, and the average number of minutes per day during which Soldiers engaged in these activities.

Nutrition targets were based on the United States Department of Agriculture (USDA) MyPlate recommendations (USDA, 2018). Targets for fruit and vegetable consumption were included here as the percentage of Soldiers eating two or more servings of fruits and vegetables per day. The data for these metrics are based on GAT survey questions asking Soldiers to report the average servings of fruits and vegetables they consume per day, respectively, over the last 30 days.

ARNG Health Index (AHI)

Health indices are widely used to gauge the overall health of populations. They offer an evidence-based tool for comparing a broad range of metrics across communities and can help inform community health needs assessments. Indices are also useful for ranking, which has proven effective in stimulating community interest and driving health improvement.

The 13 core measures included in this report were prioritized as leading health indicators for the ARNG Soldier population based on the prevalence of the condition or factor, the potential health or readiness impact, the preventability of the condition or factor, the validity of the data, the supporting evidence, and the importance to Army leadership.

In generating an AHI, the 12 selected indicators were standardized to the ARNG average using Z-scores. When possible, indicators were adjusted by age and sex prior to the standardization to allow more valid comparisons. The indicators were weighted and then collated into an overall AHI.

While health indices provide a comprehensive measure of health which may help identify populations that could potentially benefit from enhanced public health prevention measures, aggregate indices may hide some of the driving factors. Healthcare decisionmakers must further review individual measures that comprise the index in order to identify and effectively target key outcomes or behaviors that are the most significant health and readiness detractors for each State/Territory.

2019 *Health of the Force* AHI Metric	Weight (%)
MRC	10
DRC	10
Hearing	10
Obesity	10
APFT Failure	10
Hypertension	5
Illicit Drug Positive	5
Smoking Tobacco Use	5
Smokeless Tobacco Use	5
Hazardous Drinking	10
PTSD	10
Depression	10

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