

**healthy**women

# Women's Health Is a Readiness Issue: Addressing Health Disparities in the U.S. Military

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## Executive Summary

### Program Need

Women make up 17.5% of the U.S. military and they perform vital roles; however, they are 28% more likely to leave the Armed Forces than their male counterparts.<sup>1,4</sup> Given that it's critical to retain women in their valuable positions, the lack of comprehensive and inclusive healthcare across the military branches is both a readiness and retention issue.

### Background

The Department of Defense (DOD), U.S. Government Accountability Office (GAO), and RAND Corporation investigations determined the disparity in retention between genders in the Armed Forces is often associated with the military's culture (including the lack of female mentors), sexism, sexual violence, worse health outcomes than male and/or civilian counterparts, healthcare disparities, and family-related issues, such as deployment, childcare, family planning.<sup>4-7</sup>

### Program Components

In an effort to improve retention of servicewomen by helping fix a significant root cause — worse health outcomes — HealthyWomen designed, implemented, and evaluated a health education program, Ready, Healthy & Able (RHA), to provide: 1) health education for servicewomen and service members assigned female at birth (AFAB) and 2) accredited medical education for military healthcare providers (HCPs). Phase one of the program comprised more than 75 pieces of educational content in multiple mediums for service members and 11 virtual continuing education (CE) modules, two in-person lectures, and one live-streamed webinar for military HCPs. Pre- and post-test survey data results showed an increase in knowledge and/or confidence among the majority of consumers of the RHA educational resources.

### Recommendations

In its second phase, the RHA program will:

1. Conduct needs assessments to identify additional gaps and educational opportunities pertaining to the health and readiness of servicewomen and service members AFAB;
2. Expand its target audience for health education to include veterans and spouses;
3. Continue developing virtual HCP CE modules to address identified knowledge gaps and educational opportunities; and
4. Provide on-base, in-person, accredited education to military HCPs.

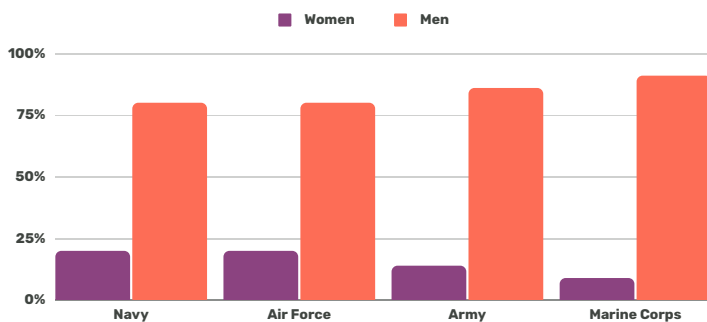
### Calls to Action

Several important actions can keep the momentum of the RHA program going. First, Congress can allow the Defense Health Agency (DHA) to include HealthyWomen as an authorized education partner. Second, the DoD and DHA could publicly recognize HealthyWomen as an authorized education partner and share the program resources with military HCPs and service members on their respective websites and on the Military Health System's Women's website. Military base leadership can propel the program forward by inviting HealthyWomen to provide free in-person accredited health education to their providers and authorize duty assignments for training days. Military and civilian HCPs providing care to service members can take similar steps by utilizing RHA training courses, bringing the program courses to military treatment facilities (MTFs) and sharing the resources with service members in their care. In turn, service members can use the resources, share their stories with HealthyWomen and inform their HCPs about the RHA program.

## Background

From recruitment to active-duty service, women play a vital and often overlooked role across all branches of the U.S. military. In 1970, women made up a mere 1% of the DoD active-duty force.<sup>2</sup> That number was up to 9% in 1980, and by 2020, it was up to 17.5% (228,966).<sup>1</sup> The percentage of women serving in the military varies greatly based on each branch. For example, enlisted women account for 20% of the Navy and Air Force, 14% of the Army but only 9% of the Marine Corps. Representation of women as officers within the military remains a challenge, as only 18% of officers overall are women.<sup>3</sup> Twenty-one

**Percentage of Women Serving in the Military, 2022**



percent of women are officers in the Air Force, but that number is only 8% in the Marine Corps.<sup>3</sup> Despite the increase of women in the military over the years, female troops are 28% more likely than their male counterparts to leave military service.<sup>4</sup> Since 2020, the DOD, GAO, and RAND Corporation have all conducted thorough investigations as to why this disparity in retention exists and how the health status of active-duty servicewomen and military culture have played a role.<sup>5-7</sup>

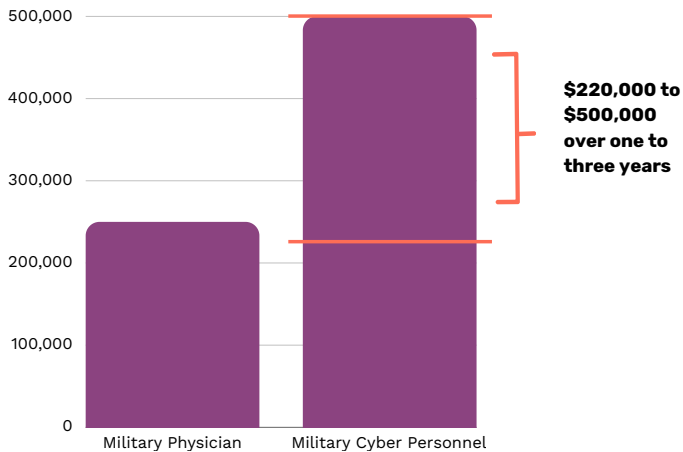
The investigations found that lower retention rates of women are directly attributed to a smaller percentage of women serving within the military's highest ranks. Attrition of women from military service is often associated with the military's organizational culture (including the lack of female mentors), sexism, sexual violence, worse health outcomes than male and/or civilian counterparts, healthcare disparities and family-related issues (such as deployment, childcare, family planning, etc.).<sup>4</sup> Noted gaps in health outcomes included higher rates of musculoskeletal injuries, unintended pregnancies, urogenital infections and diseases, sexual violence and mental health issues.<sup>5</sup> Contributing factors to

these health outcomes include gender bias and discrimination, a lack of access to HCPs with women's health training, lack of health education among servicewomen resulting in less empowerment to engage in shared decision-making and/or self-care, and lack of standardization across MTFs.<sup>5</sup> Recruitment, retention, and expanded inclusive representation of female troops across all military branches remains an unaddressed and pressing need within the Armed Forces.<sup>8</sup>

The types of positions women are allowed to serve in have continued to expand until, most notably in 2013, women were finally allowed in combat positions. As such, the number of women joining the military over the past couple of decades has exponentially increased. There has been a similar increase in the number of women who have also faced health-related issues that have long been overlooked, misdiagnosed, or left untreated.<sup>3-4, 8-12</sup> Yet despite these increases and the need for an adaptation in care and services to meet these shifts, comprehensive and women-centered healthcare for servicewomen and service members AFAB across their lifespan has largely remained unchanged. Glaring gaps in essential healthcare tailored for women's physical and psychological well-being significantly impact service members.<sup>13</sup> While updated policies now allow for greater inclusion of servicewomen in operational and/or deployable positions (i.e., shipboard, overseas, and war-zone duty assignments), these positions can subsequently create distinct healthcare challenges that the current system is unprepared to address. This, in tandem with physical and emotional demands, puts servicewomen at greater risk for health issues.<sup>14</sup>

These issues come at a time when the U.S. military is facing challenges with recruiting and retaining personnel. With only an estimated 1 in 4 Americans meeting eligibility requirements to join the military, it is essential that qualified, existing personnel be retained.<sup>15</sup> Poor retention also raises an economic issue for the military as the investment of time and training cost for certain positions can be extremely expensive. It is estimated that the DOD spends more than \$250,000 annually to train each military physician and \$220,000 to \$500,000 over one to three years to train some military cyber personnel.<sup>15-16</sup>

### Estimated Annual Training Cost



With more women actively joining the military and the need to retain those women in their valuable military positions, the lack of comprehensive and inclusive healthcare across the military branches can no longer be categorized as a “female-only issue” but, instead, a service member’s issue, leadership issue, and retention issue.

### Program Components

In an effort to improve retention by helping address some of the root causes for attrition, HealthyWomen designed, implemented, and evaluated a health education program, Ready, Healthy & Able (RHA), from January 2022 through October 2023. Using the DOD, GAO, and RAND Corporation reports as well as HealthyWomen’s own needs assessments, the health topic focus areas for RHA included contraception, gastrointestinal health, mental health, military sexual trauma, pelvic pain, reproductive health, sexually transmitted infections, urinary tract infections, uterine health conditions, and vaginal discharge.

The main objectives of this program were to:

- Engage service members assigned female at birth (AFAB) in taking a proactive and informed role in their healthcare throughout their military career;
- Empower service members AFAB to advocate for, exercise their rights to, and utilize the relevant health resources, health information, and services;

- Increase confidence among service members AFAB to proactively seek health and wellness services across their lifespan;
- Increase knowledge among service members AFAB of female health conditions and symptoms; and
- Increase knowledge among military healthcare providers (HCPs) of the common health conditions affecting service members AFAB.

To achieve these objectives, HealthyWomen, guided by an expert consortium, created two facets of the RHA program: 1) health education for servicewomen and service members AFAB and 2) accredited medical education for military HCPs.

### Consortium

HealthyWomen recruited a multi-disciplinary expert consortium to guide and develop the RHA program. The consortium consists of 13 multi-disciplinary military health experts and includes active-duty service members, veterans, military spouses and partners as well as HCPs whose specialties include obstetrics and gynecology, family medicine, mental health, sports medicine, and nursing. Consortium members met quarterly to discuss the goals of the program, conduct needs assessments, and brainstorm the most effective methods of dissemination to the two target audiences. Consortium members also played a vital role in the development of the HCP curriculum and served as faculty members to deliver continuing education (CE) lectures.

### Service Members

HealthyWomen housed all health education materials for service members on its digital platform, [military.healthywomen.org](https://military.healthywomen.org), to ensure free, constant, and discreet access from any computer or mobile device. All health education materials were developed for a military audience, evidence-based, medically reviewed when applicable, and incorporated health literacy principles. Many of these materials were also translated into Spanish. To account for different learning styles, more than 75 pieces of educational content were developed in multiple mediums including videos, fast facts, reported feature articles, infographics, digital flipbooks, comic strips, fotonovelas, quizzes, podcasts, articles with graphics or gifs, and interactive comparison tables. First-person accounts of service members and veterans

were also told through the Real Women, Real Stories feature with the intent to build community and empower readers.

HealthyWomen used a multifaceted marketing approach to ensure the educational content authentically reached the target audience. The health education materials reached an audience of more than 7,076,800:

- Website editorial: 173,259 audience reached
- Newsletters: 41,765 audience reached
- Social media: 3,053,270 total impressions
- Google ads: 3,808,601 total impressions

### Healthcare Providers

The HCP CE curriculum was developed by a multidisciplinary team and designed to be relevant to and accredited for physicians, nurses, and physicians' assistants. The CE curriculum was available to HCPs in a virtual, on-demand format via recorded webinars ranging from 15 to 60 minutes in length.

On July 13, 2023, HealthyWomen hosted an exclusive live webinar with the Uniformed Services University of the Health Sciences (USUHS) for an audience of the school's medical faculty, students, and residents. Audience specialties included family medicine and obstetrics and gynecology. The webinar topic was "Recognizing the Surgical Abdomen and Its Differentials," and provided detail on how military providers can recognize, diagnose, and treat or refer service members AFAB to essential services for conditions of the abdomen. The lecture covered the most common gastrointestinal and reproductive health conditions that military medical personnel must be aware of to effectively triage service members and recognize emergent care needs.

On July 28 and 29, 2023, HealthyWomen hosted its first in-person, on-base healthcare provider training at the Fort Riley Army base in Kansas. The training was conducted in two half-day sessions with an audience of family medicine physicians, nurses, and cadets. The agenda for the sessions was:

- Preventive Screening from Head to Toe
- Mental Health in the Military
- Contraception in the Military

- Hormonal and Mental Health Implications of Contraception
- Sexually Transmitted Infections (STIs)

HealthyWomen was among the select few chosen to provide an in-person lecture at the American College of Obstetricians and Gynecologists (ACOG) Armed Forces District Meeting on September 25, 2023. The audience for this exclusive meeting comprised military obstetricians and gynecologists. The presentation topic was "Fibroid Treatment Options & Shared Decision-Making for Mission-Readiness."

## Evaluation & Results

### Service Members

For this program, 31 pieces of educational content for service members were evaluated by a randomly selected sample of 100 active-duty service members AFAB and veterans AFAB for each piece of content. Evaluations were conducted using a pre- and post-test survey design. Survey participants answered pretest questions to evaluate baseline knowledge and confidence about the topic, and then read the educational resource and answered the same set of questions in the post-test. The only content type that did not have a pre- and posttest design was the Real Women, Real Stories feature because the intent of this resource is to empower and validate service members rather than increase knowledge. For the Real Women, Real Stories feature, survey participants read the content and then took a post-test.

HealthyWomen evaluated the extent to which expected outcomes were achieved by comparing pre-and post-test data to determine increases in knowledge as well as assessing participants' ability and intention to integrate information into decisions, behaviors, and/or clinical practice. By comparing pre- and post-test answers, HealthyWomen determined changes in knowledge as a direct result of educational content. The results of the knowledge-based questions also helped identify areas that require further educational interventions for participant mastery of the content.

Simple descriptive statistics were computed for each evaluation question. Individual items and total scores were subsequently analyzed using t tests to investigate changes in knowledge, behavioral

intention, awareness, and/or behavior after reading the content and participating in the activity. To evaluate changes in knowledge as a direct result of the activity, evaluators looked for statistically significant differences between pre-reading scores and post-reading scores. Post-test scores demonstrated changes in knowledge and the intent to change behaviors. For questions that were asked both before and after reading the content, the p-value was calculated.

In total, the number of pretest and post-test questions answered was 28,080. Changes in knowledge gain and increases were as high as 30% among program participants.

Almost all respondents (92%-97%) found the Real Women, Real Stories to be informative, and more importantly, up to 86% indicated they already did or were inspired to make choices to advocate for themselves after reading.

The other types of educational content raised awareness for between 69% and 89% of respondents across articles. A strong majority of respondents indicated they were more informed (76%-94%), more confident (73%-89%), and found the content useful (67%-85%).

Overall, participants exhibited a strong positive experience with the educational content and, as a result, a majority indicated they gained knowledge and confidence in the covered topics. HealthyWomen positively met the objectives for service members AFAB.

## Healthcare Providers

HealthyWomen developed 11 on-demand, virtual CE modules for the HCP program, with a total of 204 HCPs engaging with the content at the time this report was written. Among HCPs who engaged with the educational content, 58% were nurses, 14% were physicians, 10% were physician's assistants, and 18% were some other type of provider such as pharmacists, medics, and corpsmen. Using a pre- and post-test survey design, we measured the knowledge and confidence impact of the modules on HCPs. Among providers who completed the pre- and post-test survey:

- Up to 93% were confident in their ability to identify and treat mental health symptoms after viewing mental health modules;
- There was up to a 51% increase in knowledge of symptoms, screening guidelines, and risk factors after viewing urological health modules, with up to 91% of providers selecting the correct post-test responses; and
- There was up to a 48% increase in knowledge of symptoms, screening guidelines, and risk factors after viewing reproductive health modules, with up to 100% of providers selecting the correct post-test responses.

Participating HCPs also self-reported their plans to implement lessons learned with their teams, including sharing updated guidance on screening tests and treatment recommendations, reproductive health resources for both fellow HCPs and patients, and the need to integrate mental health services within preventive care. Overall, the majority of HCPs who engaged with the on-demand, virtual CE modules experienced an increase in knowledge and confidence in the health conditions affecting service members AFAB.

## Conclusion and Recommendations

The DOD, GAO and RAND reports have made it clear that the health status of active-duty servicewomen and service members AFAB is in critical need of improvement. The first phase of the RHA program addresses the health disparities that these essential military personnel face and successfully achieved the stated program objectives in the first phase pilot of the program. This type of educational program will be expanded and replicated to reach additional service members and healthcare providers.

In the second phase of the RHA program, HealthyWomen will:

1. Conduct needs assessments to identify additional knowledge gaps and educational opportunities pertaining to the health and readiness of servicewomen and service members AFAB;
2. Expand its target audience for health education to include veterans and spouses;
3. Continue developing virtual HCP CE modules to parallel identified knowledge gaps and educational opportunities; and
4. Provide on-base, in-person, accredited education to military HCPs.

With additional support of the program from all constituents, RHA can continue to reach large numbers of service members and their healthcare providers as the program expands to its next phase.

## Calls to Action

### Congress

1. Allow the Defense Health Agency to include HealthyWomen as an authorized education partner.

### Department of Defense and Defense Health Agency

1. Publicly recognize the RHA program as an effective educational resource.
2. Share the RHA program resources with military healthcare providers on the DHA, J-7 Education and Training Directorate, and Continuing Education Program Office (CEPO) websites.
3. Share the RHA service member educational resources on the Military Health System's Women's Health website.

### Military Base Leadership

1. Invite HealthyWomen to provide free, in-person, accredited health education symposiums to your healthcare providers.
2. Authorize duty assignments for training days.

### Military Healthcare Providers & Civilian Healthcare Providers Treating Service Members

1. Utilize the RHA-accredited training courses.
2. Invite HealthyWomen to bring free, in-person, accredited lectures to their military treatment facilities.
3. Share HealthyWomen's patient-facing educational resources with the service members AFAB in their care.

### Servicewomen & Service Members Assigned Female at Birth

1. Utilize RHA's educational resources to increase knowledge and feelings of empowerment.
2. Share their personal stories with HealthyWomen.
3. Inform their healthcare providers about the RHA educational resources.

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## About us:

HealthyWomen is the nation's leading independent, nonprofit health information source for women. Our mission is to educate women to make informed health decisions by providing them with objective, research-based health information. For more than 30 years, millions of women have turned to HealthyWomen for answers to their most important healthcare questions.

Some of our work, like the Ready, Healthy & Able program, is made possible through the generous support of funders. Their support allows us to create educational content grounded in science, free of commercial bias and widely accessible to all. Thank you to our funders:

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