

Syracuse University

## SURFACE at Syracuse University

---

Institute for Veterans and Military Families

Institutes, Research Centers, and Campus  
Groups

---

Fall 8-25-2017

### Research Brief: "Reproductive Health of Active Duty Women in Medically Austere Environments"

Institute for Veterans and Military Families at Syracuse University

Follow this and additional works at: <https://surface.syr.edu/ivmf>



Part of the [Military and Veterans Studies Commons](#), and the [Reproductive and Urinary Physiology Commons](#)

---

#### Recommended Citation

Institute for Veterans and Military Families at Syracuse University, "Research Brief: "Reproductive Health of Active Duty Women in Medically Austere Environments"" (2017). *Institute for Veterans and Military Families*. 287.

<https://surface.syr.edu/ivmf/287>

This Brief is brought to you for free and open access by the Institutes, Research Centers, and Campus Groups at SURFACE at Syracuse University. It has been accepted for inclusion in Institute for Veterans and Military Families by an authorized administrator of SURFACE at Syracuse University. For more information, please contact [surface@syr.edu](mailto:surface@syr.edu).



# Reproductive Health of Active Duty Women in Medically Austere Environments

## PUBLICATION

**AUTHORS:** Cara J. Krulewitch, CNM, Ph.D., FACNM

**SOURCE:** *Military Medicine*, 181(1S), 63-69

**DATE:** 2016

**TYPE:** Peer-Reviewed Journal Article

**LINK:** <https://doi.org/10.7205/MILMED-D-15-00221>

**KEYWORDS:** Veterans, active duty, women, women's health, reproductive health, family planning, deployment, research reviews

## ABSTRACT

“One in seven of the approximately 2.2 million Department of Defense active duty military personnel are women. Among active duty servicewomen, about 40% are under 26 years old, and almost half are young, lower ranking enlisted personnel. This article will include a review of the literature on military women's health topics such including contraception access, pregnancy, and pregnancy outcomes after environmental exposures. In these early adult years, contraception use may not be consistent, leading to higher rates of unintended pregnancy that is similar to their civilian counterparts, but it may affect troop readiness. Women who become pregnant after deployment must be evacuated from theater. Complications in pregnancy that require immediate intervention, such as ectopic pregnancy, may be more difficult to diagnose and manage if far away from comprehensive medical services. Environmental exposures may affect the pregnancy outcome, or may produce delayed responses for future childbearing. Women face other gynecologic choices including menstrual suppression while deployed. Many of these issues have not been fully studied, sample sizes are small or methodological flaws exist in the analysis limiting conclusions that can be drawn. Further research with greater rigor, larger sample sizes, and careful design are needed to address many of these questions.”

## RESEARCH HIGHLIGHTS

- One in seven of the approximately 2.2 million active duty military personnel are women. Many of these servicewomen are of childbearing age, and an estimated 40 percent are lower ranking enlisted and younger than age 26. Servicewomen can encounter unique challenges related to reproductive health, including limited access to contraceptives and feminine products while deployed, reproductive outcomes after environmental exposures, and postpartum constraints. This article reviews the literature on the reproductive health of servicewomen.
- Overall, contraceptive use and unintended pregnancy rates in active duty servicewomen are similar to the rates among civilian women. The largest difference exists among Hispanic women, where 32 percent of servicewomen report using oral contraceptives compared to 20 percent of civilian women. Additionally, unintended pregnancy is higher among younger and lower ranking enlisted active duty servicewomen than women officers.
- As the number of occupational roles for active duty servicewomen grows, the potential for environmental exposures may increase. Both men and women who have deployed to areas with burn pits have an increased risk for self-reported “moderate- to-severe” birth defects. A delayed association between exposure and birth defects were reported among fathers who had been deployed either 153 to 200 days or greater than 280 days.
- Research has not determined a conclusive link between environmental exposure and birth defects. Continued research is need on reproductive health among active duty servicewomen.



## IMPLICATIONS

### FOR PRACTICE

Servicewomen and women veterans should continue seeking medical care for their reproductive and health needs, including utilizing the services provided through their local Veterans Affairs (VA) medical centers. Considering the findings reported in this article, women should consider discussing environmental exposures with their medical provider. Healthcare providers serving active duty and veteran women should familiarize themselves with the unique needs of military and veteran women and discuss all applicable prevention and treatment options with their patients. Medical providers should also discuss prevention and treatment of environmental exposures with their male patients. Considering reproductive health extends beyond pregnancy, healthcare practitioners should conduct full examinations with their patients, which includes discussing deployment status and stations, potential health risks associated with environmental exposures, family planning, and contraceptive use and risks. Healthcare practitioners should also discuss health needs while deployed in remote locations, such as contraceptive use as menstrual control or suppression while deployed in remote areas. Providers should remain knowledgeable of toxic environmental agents and refer patients to specialists, when necessary. Providers should explore the use of portable medical equipment, such as portable ultrasounds, which can help with early detection and diagnosis of several female-related health issues.

### FOR POLICY

The Department of Defense (DoD) might continue exploring avenues to best support all service members, but the reproductive health of servicewomen. The DoD might encourage its medical providers to discuss and educate active duty service members on reproductive health. Since some women prefer a health provider of the same gender, the DoD might evaluate if more women health providers are needed. The DoD might continue reviewing the use of portable medical equipment. Policymakers are encouraged to continue supporting the overall health of servicewomen. To ensure the policies best serve the interests and needs of servicewomen, policymakers might hold town hall or similar style meetings with both active duty and civilian women. Policymakers might review and implement policies that support affordable health care, including prescription coverage. Federal and state policymakers may consider allocating funds to DoD programs that provide counseling to women on their reproductive healthcare options, especially active duty servicewomen who are younger and lower ranking enlisted personnel. Veterans Affairs medical centers are encouraged to continue offering women program managers to women veterans seeking assistance with coordination of services such as primary care, pregnancy care, psychiatric care, and sexual abuse counseling.

### FOR FUTURE RESEARCH

With the expanded role of servicewomen, greater attention has been placed on issues related to women's health. However, many areas related to the health of servicewomen deployed in remote locations have not been fully studied, and current research relies on small sample sizes and self-reported data. Future research should include larger sample sizes and standardized definitions. Future studies should include more racial/ethnic minorities to ensure the intricate details of health and healthcare are explored. Research on contraceptive use suggests the need for more research on effective training methods to promote consistent contraceptive use. Researchers should also study the role of physical challenges and mental stressors of deployed environments on decision-making abilities among service women and men. Additional research is needed on unintended pregnancies among active duty servicewomen deployed in remote areas, including circumstances and impact of pregnancy on retention. As the number of occupational roles for servicewomen grows, more research is needed on the environmental exposures and negative pregnancy outcomes, such as birth defects and infertility.

## AUTHOR INFORMATION

Cara J. Krulewitch, CNM, Ph.D., FACNM <sup>1,2</sup>

<sup>1</sup> cara.j.krulewitch.civ@mail.mil

<sup>2</sup> Office of the Assistant Secretary of Defense for Health Affairs, Department of Defense