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Women Veterans and Contraceptive Use: an Analysis of the 2004 Behavioral Risk Factor
Surveillance Survey (BRFSS)

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Abstract

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By Elizabeth Deans

Objective:

Women veterans are one of the fastest growing patient groups of the Veteran Administration (VA), however only 14% of women veterans reported seeking care at a VA in 2008-2009. Utilizing national VA databases, one study reported that only 22% of women veterans have a documented contraceptive method. The most recent results from the National Survey for Family Growth report that 62% of reproductive-aged US women use a contraceptive method.

To evaluate if veteran status is associated with contraceptive use, particularly Tier 1 methods, data was analyzed from the 2004 Behavioral Risk Factor Surveillance Survey (BRFSS), which is a nationwide telephone survey assessing health risk behaviors among adults.

Methods:

The 2004 BRFSS was the most recent year to include both “Veteran Health” and “Family Planning” as core modules. By utilizing SAS-callable Sudaan, the complex sampling design of the BRFSS was accommodated while analyzing the association between veteran status and contraceptive use among reproductive-aged women.

Results:

There were 805 women veterans and 47,347 non-military women of reproductive age at risk of unintended pregnancy. There were no differences in contraceptive use among veterans and non-military women, 88% and 87% respectively. Of women in the West, 76% of veterans and 89% of non-military women at risk of unintended pregnancy reported using any contraceptive method. In the adjusted model, veterans in the West had decreased odds (AOR, 0.40; 95% CI, 0.16-0.97) of using any contraceptive method compared with non-military women. Among contraceptive users, the adjusted odds ratio of using a Tier 1 method was 2.6 times (95% CI, 1.40-4.88) higher for veterans than for non-military women in the West. No associations were observed for the other US regions. There were no statistically significant associations between receipt of healthcare at a VA within a year and contraceptive use among reproductive-aged veterans at risk of unintended pregnancy.

Conclusions:

The majority of reproductive-aged veteran and non-military women at risk for unintended pregnancy use contraception. In the West, veterans had decreased odds of using any contraceptive method, but among contraceptive users, veterans had increased odds of using a highly effective, Tier 1 method.

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Introduction

Women veterans are one of the fastest growing patient groups of Veteran Administration (VA) users, with growth of 47% of women using the VA outpatient clinics between 2003 and 2009 (1). The VA committed to streamlining and ensuring adequate care to women veterans by establishing a Women's Health Service Office in 1988, when 4.4% of veterans were women and continues to prioritize women's reproductive healthcare (2). Currently there are approximately 8% of veterans who are women and this is projected to be 15% by 2036 (2). In 2008-2009, only 14% of women veterans reported seeking care at a VA (3). Despite growing numbers of women's health clinics, many women veterans seek reproductive health services at non-VA sites (4).

Women veterans are at high risk for unplanned pregnancy. Veterans are at risk of mental health disorders, such as PTSD and substance abuse (5). Veterans with an isolated substance abuse disorder are less likely to have a documented contraceptive method compared to those without substance abuse disorder or combined with another mental illness (6). Additionally, the younger veterans over-represent minorities, which has been associated with decreased contraceptive adherence (7). Veteran status has not been directly evaluated to be a risk factor for decreased contraceptive use.

Studies report low contraceptive use among veterans. One study utilizing national VA pharmacy and medical services databases reported that only 22% of women veterans have a documented contraceptive method (8). In another VA study evaluating contraceptive among Operation Enduring Freedom and Operation Iraqi Freedom veterans who had received care at a VA, only 30% had a documented contraceptive method (9). The proportion of veterans with a contraceptive method is much less compared to active

duty/female service members, who become veterans when discharged from their military service. A systematic review of female service members enrolled in the Armed Services reported 50-88% use a contraceptive method, decreasing to 39-77% when deployed (10). These female service members use contraception similar to the American population. The 2006 – 2008 and 2011-2013 National Survey for Family Growth report that 62% of reproductive-aged US women use a contraceptive method (11, 12).

Are veterans using less contraception? Or, rather, are veterans getting reproductive healthcare elsewhere? Our study aims to evaluate contraceptive use among veterans. In order to capture data from veterans who may not seek care at a VA, we will be performing an analysis of a national data sample. We hypothesize that veterans use contraception similar to the US population.

Materials and Methods

The Behavioral Risk Factor Surveillance Survey (BRFSS) is a nationwide, cross-sectional telephone survey which assesses health risk behaviors, chronic health conditions, and preventative services utilization among adults 18 years and older conducted by state health departments in collaboration with the Centers for Disease Control and Prevention (CDC). BRFSS data are weighted to produce estimates representative of the state population. The BRFSS contains core and optional modules addressing different health topics. All states and territories are required to complete the core modules. The 2004 BRFSS was the last year to have “Veteran Health” and “Family Planning” as core modules concurrently. Thus, in order to get a national sample evaluating veteran status and contraceptive use, we analyzed the 2004 BRFSS data. The 2004 median state and territory response rate was 52.7%; Hawaii and Guam data were not reported. The BRFSS data set is publically available for use, thus this study is

excluded from IRB review. More detail on the BRFSS, including methodology, is available from the BRFSS website (13).

Veteran status was assessed in the Veteran Status module by asking the following: “Have you ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit?” If answered ‘yes’, respondents were then asked to specify their service in the military with the following options, “currently on active duty, currently in a National Guard or Reserve Unit, retired from military service, medically discharged from military service, discharged from the military service, and don’t know/not sure.” Veterans included those retired, medically discharged, and discharged from military service. Additionally, those veterans who received healthcare at a Veterans Administration Facility (VA) were identified by the questions, “In the last 12 months, have you received some or all of your health care from VA facilities?” The options of all and some of my health care were combined to form a ‘any VA care’ dichotomous variable.

Our primary outcome was contraceptive use, which was determined from the Family Planning module questions. Respondents were asked, “Are you doing anything to keep from getting pregnant?” The options were yes, no, no partner or not sexually active, same sex partner, and not sure. If the response was ‘yes’, then they were asked “What method are you using?” Additionally, if initially responded ‘no,’ then they were asked their main reason for not using birth control. Possible reasons for not using birth control included that they or their partners had been previously sterilized. Those respondents were considered contraceptive users. Females who were 45 years or older, had had a hysterectomy, or were pregnant and males 60 years or older were not asked these

questions.

For this analysis, we grouped contraceptive methods together into different tiered groups based on method effectiveness (14). We defined Tier 1 methods as the most effective methods resulting in less than 1 pregnancy per 100 women in a year. Tier 1 methods include female and male sterilization, intrauterine devices (IUDs), and implants. Tier 2 methods result in 6-12 pregnancies per 100 women in a year and include injectable methods, pills, patches, rings, and diaphragms. Tier 3 methods result in 18 or more pregnancies per 100 women in a year and include male and female condoms, withdrawal, rhythm, and other methods (foams, jelly, spermicide). Lactational amenorrhea method (LAM) was not specified in the BRFSS options. Emergency contraception was not included in the analysis.

In order to analyze women aged 18-44 at risk for unintended pregnancy from the entire respondent sample of 303,822, we first excluded men from the sample (n=117,566, weighted 48.4% of all respondents). Then we excluded women who were 45 years of age or older, as these women were not asked the Family Planning module questions (n=113,368, weighted 26.0% of all respondents). To identify women at risk for unintended pregnancy, we excluded pregnant women and those desiring to be pregnant (listed as a reason to not use birth control) (n=6,180, weighted 2.5% of all respondents), women with a prior hysterectomy (n=6,775, weighted 1.9% of all respondents), and women who were not sexually active or had a same sex partner (n=9,843, weighted 3.4% of all respondents). We also excluded respondents with missing values of our main outcome, any contraceptive method use (n=1,607, weighted 0.6% of all respondents), and respondents with missing values of veteran status or who were currently on active duty,

in a National Guard or Reserve Unit, or did not know their status (n=314, weighted 0.1% of all respondents). The final sample eligible for analysis included a total of 48,169 respondents, weighted 17.2% of all respondents, that were women aged 18-44 at risk for unintended pregnancy with known contraceptive and veteran statuses. Of those 48,169, 795 were veterans and 47,347 were non-military respondents.

We performed bivariate and multivariate regression analyses evaluating the relationships between veteran status (veteran or non-military status), other demographic characteristics, and contraceptive use. We performed a multivariate analysis examining associations between veteran status and any contraceptive method use. Among contraceptive users, we performed a separate multivariate analysis examining associations between veteran status and Tier 1 contraceptive method use. Based on our bivariate analysis results and *a priori* considerations, we adjusted for age, race/ethnicity, marital status, education, health plan coverage, number of children, smoking status, binge drinking, having a pap smear in the last 3 years, and region. Although we were able to reduce the number of confounders with backwards elimination, we did not change the final confounders given *a priori* considerations. Regions for states were classified using the US Census classifications. Puerto Rico and the Virgin Islands were categorized using the US Health and Human Services classifications (15, 16). We evaluated and did not identify any collinearity among the covariates given low variance inflation factors. We also evaluated for effect modification among veteran status and age, race/ethnicity, health plan, and region. Region was an effect modifier for both multivariate models of veteran status and any contraceptive and Tier 1 contraceptive method use, thus we present the results stratified by regional categories.

Among veterans, we performed bivariate and multivariate regression analysis evaluating the relationships between seeking healthcare at a VA facility in the last year, other demographic characteristics, and contraceptive use. Because of low numbers in the different racial/ethnic and smoker groups, we collapsed race/ethnicity into ‘white, non-Hispanic’ and ‘non-white’ categories and ‘former smoker’ into the ‘never smoker’ group. We performed a multivariate analysis examining associations between healthcare at a VA in the last year and any contraceptive method use. Based on our bivariate analysis results and *a priori* considerations, we adjusted for age, race/ethnicity, marital status, number of children, binge drinking, and region. By performing backwards elimination we could have reduced the number of confounders, but did not change the final confounders given *a priori* considerations. We evaluated and did not identify any collinearity among the covariates given low variance inflation factors. We also evaluated for effect modification among veteran status and age, race/ethnicity, and region. The binary race/ethnicity variable was an effect modifier for the multivariate model of any VA healthcare in the last year and any contraceptive method use, thus we present the results stratifying by race.

In order to accommodate for the complex sampling design of the BRFSS, we included the calculated weights, stratification and clustering variables provided publically by the CDC and used SAS-callable Sudaan (SAS Institute Inc., Cary, NC) for the analyses. Missing observations were dropped from the analysis if they were less than five percent of the reported values for the respective variable.

Results

Of the women respondents, 48,169 were between the ages of 18-44 and at risk for

unintended pregnancy. Most respondents were ≥ 35 years of age, married, white, employed, non-smokers and had 1-2 children. Most respondents also had healthcare coverage and had had a pap smear in the last 3 years (Table 1). Among women aged 18-44 at risk for unintended pregnancy, 1.4% (n=795) were veterans. Half of veterans lived in the South compared to non-military women who were more evenly distributed throughout the country. A higher percentage of veterans were older (35-44 years) (52%) than non-military respondents (41%). More veterans had at least high school education (79%) compared to non-military women (62%). There were more black veterans (23%) compared to non-military respondents (11%), but fewer Hispanic veterans (6%) than non-military respondents (19%).

The majority of respondents (88% of veterans and 87% of non-military women) used a method of contraception and 43% of veterans and 33% of non-military women use Tier 1 methods (Table 2). Among veterans, the most popular methods were female sterilization (23%) and pills (20%) and among non-military women, pills (26%) and female sterilization (19%). Long-acting reversible contraceptives (LARC) were rarely used, only by 3% of both veteran and non-military respondents (Table 2).

Being a veteran was not associated with any contraceptive method use in the unadjusted analysis (Table 3). The region in which respondents lived modified the influence of veteran status on any contraceptive method use. Of all women living in the West, 76% of veterans and 89% of non-military women at risk of unintended pregnancy reported using any contraceptive method. In the adjusted model, veterans in the West had decreased odds (AOR, 0.40; 95% CI, 0.16-0.97) of using any contraceptive method compared with non-military women (Table 3). No associations were observed for the

other regions in the United States.

When evaluating only contraceptive users at risk of unintended pregnancy, 48% of veterans and 38% of non-military women were using a Tier 1 method. Being a veteran was associated with increased odds of a Tier 1 method use compared to non-military women in the unadjusted analysis (UOR, 1.55; 95% CI, 1.21-1.99) (Table 3). Region also modified the influence of veteran status on Tier 1 method use among contraceptive users. In the adjusted model, the adjusted odds ratio of using a Tier 1 contraceptive method was 2.6 times (95% CI, 1.40-4.88) higher for veterans than for non-military women living in the West (Table 3). Thus, among women in the West, veterans had decreased odds of using any contraceptive method, but among birth control users in the West, veterans had increased odds of using a highly effective, Tier 1 method. This association was maintained when restricting the analysis to only white, non-Hispanic respondents and black, non-Hispanic respondents (data not shown).

Regarding veterans aged 18-44 at risk of unintended pregnancy, there were many demographic similarities between veterans who went to the VA for healthcare in the last year (13%) compared to those that did not (87%). In fact, the only statistically significant difference between veterans who received and did not receive VA healthcare in the last year was age distribution (data not shown). Twenty-five percent of veterans who received VA healthcare and 8% of veterans who did not receive VA healthcare in the last year were ages 18-24. Thirty-four percent of veterans who received VA healthcare and 55% of veterans who did not receive VA healthcare were ages 35-44.

The majority of veterans used a contraceptive method, 86% and 88% of veterans who did and did not seek healthcare at a VA facility in the last year, respectively. Regarding

highly effective contraception, 28% of veterans who went to the VA in the last year used a Tier 1 method compared to 45% of veterans who did not go to the VA (Table 4). The most popular method among veterans who went to the VA in the last year for care was pills (27%) compared to female sterilization (24%) among veterans who did not seek care at the VA in the last year (Table 4). Veterans who went to the VA for care used pills (27% v 19%) and injections (10% v 5%) more than veterans who did not go to the VA for care in the last year.

Race/ethnicity modified the association between having any healthcare at a VA in the last year and any contraceptive method use. For veterans at risk for unintended pregnancy, 92% and 89% of white, non-Hispanic veterans used any contraceptive method among those who received and did not receive healthcare at a VA in the last year, respectively. However, 75% and 87% of non-white veterans used any contraceptive method among those who received and did not receive healthcare at a VA in the last year, respectively. Specifically, the odds of any contraceptive method use was increased for white, non-Hispanic veterans (AOR 1.64, 95% CI, 0.53-5.14), whereas the odds of any contraceptive method use was decreased for non-white veterans (AOR 0.41, 95% CI, 0.09-1.80). However, given the low numbers of the sample, the adjusted ORs were not statistically significant as both confidence intervals cross 1.0 (Table 5).

Discussion

Similar to non-military women, the majority of women veterans aged 15-44 years at risk for unintended pregnancy use contraception. These findings are reassuring as previous VA database studies have demonstrated much lower documented contraceptive use among veterans (8, 9). From our analysis, the proportion of veteran contraceptive

users is also similar to that female service members (10), highlighting that female service members may continue contraceptive use after discharge from the military.

Our analysis also demonstrates that being a veteran is not associated with any contraceptive method use except in the West. Women veterans in the West have decreased odds of using any contraceptive method. However, when specifically evaluating veterans who are birth control users, those veterans in the West have increased odds of using a Tier 1 method compared to less effective methods. The reason behind this regional difference is unclear and requires further study, particularly evaluating access to reproductive and VA healthcare.

The majority of both reproductive aged veterans at risk for unintended pregnancy who did and did not receive VA healthcare in the last year use a contraceptive method. Other than age, there were no other statistically significant differences between these two groups, including any contraceptive method use. Veterans who received healthcare at a VA within the last year are younger than those who did not. A quarter of the veterans that received care at a VA in the last year are 18-24 years of age, which may represent those that have recently been discharged from military service. Veterans who performed combat operations after 1998 are eligible for VA healthcare for up to 5 years after discharge. Other veterans may be eligible based on financial circumstances and a service-based disability. All veterans are encouraged to apply to confirm eligibility status for VA benefits (17).

Although not statistically significant likely due to small sample size, pattern of VA Care being associated with an increased odds for white and decreased odds for non-whites for any contraceptive use. This discrepancy is consistent with earlier findings from

a study on contraceptive adherence at the VA in which blacks and Hispanics were less likely to adhere to a tier 2 method compared to whites (7). More comprehensive studies are needed to explore this trend and adapt reproductive health outreach for these minority veterans.

A notable strength of our study is that this is a national sample of veterans, both those who are recent VA users and non-users. Prior studies evaluating contraceptive use have utilized VA databases and represent only VA users, who represent a minority of veterans (4, 8). Our results of veteran contraceptive use are consistent with study results of female service members and higher than overall US population contraceptive use (10-12). The National Survey of Family Growth, however, does not exclude women who are pregnant, trying to get pregnant, or not sexually active from their population (11, 12). Including women who are not at risk at unintended pregnancy will decrease the overall proportion of contraceptive users in their population.

We considered several limitations to our study. First of all, despite being a national sample, the overall numbers of veterans at reproductive age at risk for unintended pregnancy are low at 795. The BRFSS is a nationwide, telephone survey and although in 2004, an estimated 94% of the US was thought to have a telephone, homeless and lower income Americans would not be included in this sample (13). Additionally, cell phone numbers were included in the 2011 BRFSS (18), thus many potential respondents who relied exclusively on cell phones in 2004 were not included. The 2004 BRFSS median response rate was only 52.7% and Hawaii and Guam did not have reported data, thus introducing potential selection bias.

Secondly, the BRFSS is a self-report questionnaire. Social desirability bias may

have influenced the accuracy of several demographic characteristics and health behaviors reports such as contraceptive use, weight, drinking status, and smoking status. This misclassification bias should be non-differential, biasing the comparisons toward the null. Lastly, given the self-report nature of the BRFSS, we were unable to confirm if people who reported to be infertile were indeed infertile. Thus, we included those that answered ‘you didn’t think you or your partner could get pregnant’ for the reasons to not using a contraceptive method.

Our results also emphasize that most of the reproductive age veterans at risk of unintended pregnancy have not received recent healthcare a VA. Thus, all non-VA providers should screen patients for veteran status. ACOG Committee Opinion number 547 *Health Care for Women in the Military and Women Veterans* recommends assessing patients for a personal history of military service and veteran status, referring patients to confirm eligibility for VA services, and understanding reproductive health risks of prior military service (19).

References

1. Friedman SA, Phibbs CS, Schmitt SK, Hayes PM, Herrera L, Frayne SM. New women veterans in the VHA: a longitudinal profile. *Womens Health Issues* 2011;21(4 Suppl):S103-11.
2. US Department of Veteran Affairs. Women Veteran Health Care. <http://www.womenshealth.va.gov/>
3. Goyal V, Borrero S, Schwarz EB. Unintended pregnancy and contraception among active-duty servicewomen and veterans. *Am J Obstet Gynecol* 2012;206(6):463-9.
4. Washington DL, Bean-Mayberry B, Riopelle D, Yano EM. Access to care for women veterans: delayed healthcare and unmet need. *J Gen Intern Med* 2011;26 Suppl 2:655-61.
5. US Government Accountability Office, VA MENTAL HEALTH Number of Veterans Receiving Care, Barriers Faced, and Efforts to Increase Access; 2011. <http://www.gao.gov/assets/590/585743.pdf>
6. Callegari LS, Zhao X, Nelson KM, Lehavot K, Bradley KA, Borrero S. Associations of mental illness and substance use disorders with prescription contraception use among women veterans. *Contraception* 2014;90(1):97-103.
7. Borrero S, Zhao X, Mor MK, Schwarz EB, Good CB, Gellad WF. Adherence to hormonal contraception among women veterans: differences by race/ethnicity and contraceptive supply. *Am J Obstet Gynecol* 2013;209(2):103.e1-11.
8. Borrero S, Mor MK, Zhao X, McNeil M, Ibrahim S, Hayes P. Contraceptive care in the VA health care system. *Contraception* 2012;85(6):580-8.
9. Goyal V, Mattocks K, Bimla Schwarz E, Borrero S, Skanderson M, Zephyrin L, et al. Contraceptive provision in the VA healthcare system to women who report military sexual trauma. *J Womens Health (Larchmt)* 2014;23(9):740-5.
10. Holt K, Grindlay K, Taskier M, Grossman D. Unintended pregnancy and contraceptive use among women in the U.S. military: a systematic literature review. *Mil Med* 2011;176(9):1056-64.
11. Jones J, Mosher W, Daniels K. Current contraceptive use in the United States, 2006-2010, and changes in patterns of use since 1995. *Natl Health Stat Report* 2012(60):1-25.
12. Daniels K, Daugherty J, Jones J. Current contraceptive status among women aged 15-44: United States, 2011-2013. *NCHS Data Brief* 2014(173):1-8.
13. Centers of Disease Control and Prevention. Behavioral Risk Factor Surveillance Survey; <http://www.cdc.gov/brfss/about/index.htm>
14. Centers of Disease Control and Prevention. Effectiveness of Contraceptive Methods. http://www.cdc.gov/reproductivehealth/UnintendedPregnancy/PDF/Contraceptive_methods_508.pdf
15. US Census Bureau. Census Divisions and Census Regions. http://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf

16. US Department of Health and Human Services. Regional Offices.
<http://www.hhs.gov/iea/regional/>
17. US Department of Veteran Affairs. Health Benefits.
<http://www.va.gov/healthbenefits/apply/veterans.asp>
18. Methodologic changes in the Behavioral Risk Factor Surveillance System in 2011 and potential effects on prevalence estimates. *MMWR Morb Mortal Wkly Rep* 2012;61(22):410-3.
19. Committee Opinion No. 547: Health care for women in the military and women veterans. *Obstet Gynecol* 2012;120(6):1538-42.

Tables

Table 1. Characteristics of veterans and non-military women^a aged 18-44 years at risk for unintended pregnancy^b (N=48,169)

Characteristics	Veteran Respondents N=795 (1.4) n (%)^c	Non-Military Respondents N=47,374 (98.6) n (%)^c	X² p-value
Demographics			
Age			<0.05
18-24	51 (10.0)	6,770 (22.8)	
25-34	320 (38.0)	18,461 (36.7)	
35-44	424 (52.0)	22,143 (40.5)	
Marital Status^d			<0.05
Married/Coupled	539 (71.8)	31,308 (67.7)	
Previously Married	147 (14.6)	6,236 (9.2)	
Never Married	107 (13.6)	9,758 (23.0)	
Race/Ethnicity^d			<0.05
White, non-Hispanic	559 (66.6)	34,210 (63.8)	
Black, non-Hispanic	141 (22.7)	5,129 (11.3)	
Hispanic	40 (5.6)	5,311 (18.9)	
Other/multiracial, non-Hispanic	50 (5.1)	2,505 (6.0)	
Education^d			<0.05
< High School	8 (1.4)	4,030 (11.0)	
High School Graduate	165 (19.4)	12,878 (27.2)	
> High School	621 (79.2)	30,433 (61.8)	
Employment^d			<0.05
Employed	554 (71.9)	32,099 (63.4)	
Unemployed	241 (28.1)	15,204 (36.6)	
Income^d			<0.05
<\$15,000	44 (4.3)	4,655 (12.1)	
\$15,000 to <\$25,000	115 (15.7)	7,767 (17.8)	
\$25,000 to <\$50,000	278 (34.5)	13,881 (29.5)	
\$50,000 or more	303 (45.5)	17,141 (40.5)	
Number of Children^d			<0.05
None	170 (21.3)	12,287 (27.4)	
1-2	450 (58.9)	25,093 (51.9)	
3 or more	173 (19.7)	9,947 (20.6)	
Region^e			<0.05
Northeast	121 (12.2)	10,277 (19.8)	
Midwest	161 (20.9)	10,614 (22.6)	
South	326 (50.6)	15,256 (34.8)	
West	187 (16.3)	11,227 (22.7)	
Health Plan Coverage^d			<0.05
Yes	702 (88.2)	38,706 (80.2)	
No	93 (11.8)	8,587 (19.8)	
Past Year Financial Barrier to Care^{df}			<0.05
Yes	105 (11.7)	8,772 (18.9)	
No	690 (88.3)	38,549 (81.1)	
Health Characteristics			
BMI (kg/m²) category^d			<0.05

Under or Normal Weight	362 (49.1)	23,555 (53.7)	
Overweight	241 (33.9)	11,818 (26.2)	
Obese	154 (16.9)	9,400 (20.1)	
Smoking status^d			<0.05
Current Smoker	226 (29.3)	11,215 (22.4)	
Former Smoker	160 (19.7)	6,838 (13.3)	
Never Smoker	408 (51.0)	29,235 (64.3)	
Binge Drinking^{dg}			<0.05
Yes	80 (8.6)	5,936 (13.2)	
No	710 (91.4)	41,115 (86.8)	
Pap Smear in last 3 years^d			<0.05
Yes	746 (95.2)	43,128 (90.3)	
No	49 (4.8)	4,060 (9.7)	

- a. Veterans defined as those who reported being retired, discharged, or medically discharged from military service. Non-military defined as non-veterans who are not currently on active duty or in a National Guard or Reserve Unit.
- b. At risk for unintended pregnancy includes women of reproductive ages (18-44) who are heterosexual, sexually active, without a prior hysterectomy, and who are not pregnant or trying to get pregnant.
- c. Unweighted numbers and weighted percentages
- d. Missing values not included, thus column totals might not sum to 100%. Missing values that were <5% of the variable total were excluded.
- e. Regions for states were classified using the US Census classifications. Puerto Rico and the Virgin Islands were categorized using the US Health and Human Services classifications.
- f. Represents the answer to the following question: Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?
- g. Self-report ≥ 5 drinks consumed at one time
- h. Tier 1 methods include sterilization, intrauterine devices (IUDs), and implants. Tier 2 methods include injectables, pills, patches, rings, and diaphragm. Tier 3 methods include condoms, withdrawal, sponge, natural family planning/rhythm, and spermicide.

Table 2. Contraceptive methods among veterans and non-military women aged 18-44 years at risk for unintended pregnancy, N=48,169

Contraceptive Method	Veteran n^a (%)	Non-military n^a (%)
Contraceptive Use (any method)^b		
Yes	691 (88.1)	41,604 (87.1)
No	104 (11.9)	5,770 (12.9)
Tier 1 methods		
Female sterilization	194 (23.4)	10,284 (18.8)
Male sterilization	141 (16.1)	6,107 (10.8)
IUD/Implants	17 (3.1)	1,473 (3.2)
Tier 2 methods		
Injections	42 (5.5)	1,730 (3.8)
Pills	161 (20.2)	12,085 (26.6)
Patch	6 (0.5)	840 (2.1)
Diaphragm, nuvaring, cervical ring	1 (0.0)	423 (0.8)
Tier 3 methods (total)		
Condoms	85 (14.1)	6,421 (15.5)
Withdrawal	7 (0.7)	266 (0.7)
Rhythm	22 (2.2)	1,303 (3.0)
Other (jelly, cream, etc)	15 (2.2)	672 (1.8)

a. Unweighted numbers and weighted percentages.

b. Veterans and non-military women aged 18-44 at risk of unintended pregnancy do not differ in contraceptive use, p=0.61

Table 3. Odds of any contraceptive method use versus no method use among all women and Tier 1 method use versus less effective method use among birth control users aged 18-44 years at risk for unintended pregnancy, stratified by region

Veteran Status	Use of any contraceptive method, N= 48,169			Use of a Tier 1 method ^a , N= 42,295		
	n (Row %) ^b	Unadjusted OR (95% CI)	Adjusted OR ^c (95% CI)	n (Row %) ^b	Unadjusted OR (95% CI)	Adjusted OR ^d (95% CI)
Veteran	691 (88.1)	1.10 (0.76, 1.59)	--	352 (48.4)	1.55 (1.21, 1.99)	--
Non-military	41,604 (87.1)	1.00	--	17,864 (37.6)	1.00	--
Region						
Northeast						
Veteran	101 (92.2)	1.98 (1.05, 3.75)	1.61 (0.84, 3.07)	47 (44.7)	1.50 (0.81, 2.76)	1.07 (0.59, 1.95)
Non-military	8,833 (85.6)	1.00	1.00	3,489 (35.1)	1.00	1.00
Midwest						
Veteran	136 (92.7)	1.78 (0.99, 3.22)	1.74 (0.92, 3.29)	71 (49.8)	1.68 (0.96, 2.94)	0.96 (0.48, 1.89)
Non-military	9,341 (87.7)	1.00	1.00	3,973 (37.2)	1.00	1.00
South						
Veteran	295 (89.0)	1.27 (0.77, 2.10)	1.08 (0.64, 1.84)	140 (45.8)	1.26 (0.89, 1.79)	1.04 (0.70, 1.55)
Non-military	13,398 (86.4)	1.00	1.00	5,864 (40.1)	1.00	1.00
West						
Veteran	159 (76.3)	0.41 (0.17, 0.97)	0.40 (0.16, 0.97)	94 (58.9)	2.47 (1.35, 4.52)	2.62 (1.40, 4.88)
Non-military	10,032 (88.7)	1.00	1.00	4,538 (36.7)	1.00	1.00

a – Tier 1 methods include sterilization, IUDs and implants.

b -- Unweighted numbers and weighted percentages.

c -- Adjusted for age, marital status, race, education, health plan, number of children, BMI, smoking status, binge drinking, and having a pap smear in the last 3 years.

d -- Adjusted for age, marital status, race, education, income, financial barrier to care, number of children, BMI, smoking status, binge drinking, and having a pap smear in the last 3 years.

Table 4. Contraceptive methods among veteran women aged 18-44 years at risk for unintended pregnancy who did and did not receive any healthcare at a Veterans Administration facility in the last year, N=794

Contraceptive Methods	VA Care last year N=112 (13.4%) n (%) ^a	No VA Care last year N=682 (86.6%) n (%)
Contraceptive User^b		
Yes	96 (86.2)	595 (88.4)
No	16 (13.8)	87 (11.6)
Tier 1 Methods		
Female sterilization	27 (19.6)	167 (24.0)
Male sterilization	13 (7.1)	128 (17.5)
IUD/Implants	3 (1.0)	14 (3.4)
Tier 2 Methods		
Injections	10 (10.2)	32 (4.8)
Pills	30 (27.7)	131 (19.0)
Patch	1 (0.3)	5 (0.5)
Diaphragm, nuvaring, cervical ring	0	1 (0.1)
Tier 3 Methods		
Condoms	9 (19.4)	76 (13.3)
Withdrawal	0	7 (0.8)
Rhythm	2 (0.8)	20 (2.4)
Other (jelly, cream, etc)	1 (0.2)	14 (2.6)

a. Unweighted numbers and weighted percentages are being reported

b. Veterans who received healthcare at a VA in the last year and those who did not aged 18-44 at risk of unintended pregnancy do not differ in any contraceptive method use, p=0.72

Table 5. Odds of using any contraceptive method compared to no method among veteran women aged 18-44 years at risk for unintended pregnancy who have had any healthcare at a Veterans Administration facility in the last year, stratified by race/ethnicity (N=794)

	Use of any contraceptive method		
	N (Row %) ^a	Unadjusted OR (95% CI)	Adjusted ^b OR (95% CI)
VA Care in last year			
VA Care last year	98 (86.4)	0.82 (0.29, 2.29)	--
No VA Care last year	603 (88.5)	1.00	--
Race			
White, non-Hispanic			
VA Care last year	69 (91.7)	1.35 (0.44, 4.14)	1.59 (0.50, 5.02)
No VA Care last year	425 (89.0)	1.00	1.00
Non-White^c			
VA Care last year	27 (75.2)	0.45 (0.09, 2.28)	0.41 (0.09, 1.81)
No VA Care last year	175 (87.1)	1.00	1.00

a – Unweighted numbers and weighted percentages

b -- Adjusted for age, marital status, number of children, binge drinking, and region.

c – Includes black, non-Hispanic, Hispanic, other/multi-racial, non-Hispanic categories.

Appendix A

Descriptive Tables

Table 6. Odds of any contraceptive method use versus no method use among all women and Tier 1 method use versus less effective methods use among birth control users aged 18-44 years at risk for unintended pregnancy, stratified by region

Veteran Status	Use of any contraceptive method, N= 48,169			Use of a Tier 1 method ^a , N= 42,295		
	n (Row %) ^b	Unadjusted OR (95% CI)	Adjusted OR ^c (95% CI)	n (Row %) ^b	Unadjusted OR (95% CI)	Adjusted OR ^d (95% CI)
Veteran	691 (88.1)	1.10 (0.76, 1.59)	--	352 (48.4)	1.55 (1.21, 1.99)	--
Non-military	41,604 (87.1)	1.00	--	17,864 (37.6)	1.00	--
Region						
Northeast						
Veteran	101 (92.2)	1.98 (1.05, 3.75)	1.72 (0.88, 3.35)	47 (44.7)	1.50 (0.81, 2.76)	1.09 (0.61, 1.95)
Non-military	8,833 (85.6)	1.00	1.00	3,489 (35.1)	1.00	1.00
Midwest						
Veteran	136 (92.7)	1.78 (0.99, 3.22)	1.67 (0.90, 3.09)	71 (49.8)	1.68 (0.96, 2.94)	1.05 (0.56, 1.97)
Non-military	9,341 (87.7)	1.00	1.00	3,973 (37.2)	1.00	1.00
South						
Veteran	295 (89.0)	1.27 (0.77, 2.10)	1.07 (0.64, 1.78)	140 (45.8)	1.26 (0.89, 1.79)	1.00 (0.69, 1.45)
Non-military	13,398 (86.4)	1.00	1.00	5,864 (40.1)	1.00	1.00
West						
Veteran	159 (76.3)	0.41 (0.17, 0.97)	0.37 (0.15, 0.88)	94 (58.9)	2.47 (1.35, 4.52)	2.46 (1.40, 4.33)
Non-military	10,032 (88.7)	1.00	1.00	4,538 (36.7)	1.00	1.00

a -- Tier 1 methods include sterilization, IUDs and implants.

b -- Unweighted numbers and weighted percentages.

c -- Adjusted for race, BMI, and having a pap smear in the last 3 years.

d -- Adjusted for age, marital status, number of children, and BMI.

Table 7. Odds of using any contraceptive method compared to no method among veteran women aged 18-44 years at risk for unintended pregnancy who have had any healthcare at a Veterans Administration facility in the last year, stratified by race/ethnicity (N=794)

	Use of any contraceptive method		
	N (Row %) ^a	Unadjusted OR (95% CI)	Adjusted ^b OR (95% CI)
VA Care in last year			
VA Care last year	98 (86.4)	0.82 (0.29, 2.29)	--
No VA Care last year	603 (88.5)	1.00	--
Race			
White, non-Hispanic			
VA Care last year	69 (91.7)	1.35 (0.44, 4.14)	1.48 (0.46, 4.73)
No VA Care last year	425 (89.0)	1.00	1.00
Non-White^c			
VA Care last year	27 (75.2)	0.45 (0.09, 2.28)	0.43 (0.10, 1.87)
No VA Care last year	175 (87.1)	1.00	1.00

a – Unweighted numbers and weighted percentages

b -- Adjusted for number of children, binge drinking, and region

c – Includes black, non-Hispanic, Hispanic, other/multi-racial, non-Hispanic categories.

Table 8. Characteristics of contraceptive users and non-contraceptive users among women aged 18-44 years at risk for unintended pregnancy^a (N=48,169)

Characteristics	Any contraceptive method N= 42,295 n (row%)^b	No contraceptive method N=5,874 n (row%)^b	X² p-value
Demographics			
Veteran Status^c			0.607
Veteran	691 (88.1)	104 (11.9)	
Non-military	41,604 (87.1)	5,770 (12.9)	
Age			<0.05
18-24	6,019 (87.5)	802 (12.5)	
25-34	16,670 (88.4)	2,111 (11.6)	
35-44	19,606 (85.7)	2,961 (14.3)	
Marital Status^d			<0.05
Married/Coupled	27,981 (87.5)	3,866 (12.5)	
Previously Married	5,681 (88.3)	702 (11.7)	
Never Married	8,577 (85.6)	1,288 (14.4)	
Race/Ethnicity^d			<0.05
White, non-Hispanic	30,897 (88.2)	3,872 (11.8)	
Black, non-Hispanic	4,438 (83.8)	832 (16.2)	
Hispanic	4,637 (86.7)	714 (13.3)	
Other/multiracial, non-Hispanic	2,148 (83.7)	407 (16.3)	
Education^d			<0.05
< High School	3450 (86.5)	588 (13.5)	
High School Graduate	11,332 (84.8)	1,711 (15.2)	
> High School	27,489 (88.2)	3,565 (11.8)	
Employment^d			0.1665
Employed	28,702 (86.8)	3,951 (13.2)	
Unemployed	13,541 (87.6)	1,904 (12.4)	
Income^d			0.0962
<\$15,000	4,081 (86.7)	618 (13.3)	
\$15,000 to <\$25,000	6,908 (86.7)	974 (13.3)	
\$25,000 to <\$50,000	12,493 (87.2)	1,666 (12.8)	
\$50,000 or more	15,465 (88.4)	1,979 (11.6)	
Number of Children^d			<0.05
None	10,469 (84.1)	1,988 (15.9)	
1-2	22,494 (87.0)	3,049 (13.0)	
3 or more	9,292 (91.4)	828 (8.6)	
Region^e			<0.05
Northeast	8,934 (85.7)	1,464 (14.3)	
Midwest	9,477 (87.8)	1,298 (12.2)	
South	13,693 (86.5)	1,889 (13.5)	
West	10,191 (88.6)	1,223 (11.4)	
Health Plan Coverage^d			<0.05
Yes	34,803 (87.7)	4,605 (12.3)	
No	7,427 (84.7)	1,253 (15.3)	
Past Year Financial Barrier to Care^{df}			<0.05

	Yes	7,686 (85.5)	1,191 (14.5)	
	No	34,571 (87.5)	4,668 (12.5)	
Health Characteristics				
	BMI (kg/m²) category^d			0.056
	Under or Normal Weight	21,273 (87.8)	2,644 (12.2)	
	Overweight	10,624 (87.8)	1,435 (12.2)	
	Obese	8,222 (86.0)	1,332 (14.0)	
	Smoking status^d			<0.05
	Current Smoker	9,993 (86.7)	1,448 (13.3)	
	Former Smoker	6,189 (87.7)	809 (12.3)	
	Never Smoker	26,034 (87.1)	3,609 (12.9)	
	Binge Drinking^{dg}			<0.05
	Yes	5,371 (89.3)	645 (10.7)	
	No	36,643 (86.8)	5,182 (13.2)	
	Pap Smear in last 3 years^d			<0.05
	Yes	38,913 (88.2)	4,961 (11.8)	
	No	3,254 (77.1)	855 (22.9)	

- a. At risk for unintended pregnancy includes women of reproductive ages (18-44) who are heterosexual, sexually active, without a prior hysterectomy, and who are not pregnant or trying to get pregnant.
- b. Unweighted numbers and weighted percentages
- c. Veterans defined as those who reported being retired, discharged, or medically discharged from military service. Non-military defined as non-veterans who are not currently on active duty or in a National Guard or Reserve Unit.
- d. Missing values not included, thus column totals might not sum to 100%. Missing values that were <5% of the variable total were excluded.
- e. Regions for states were classified using the US Census classifications. Puerto Rico and the Virgin Islands were categorized using the US Health and Human Services classifications.
- f. Represents the answer to the following question: Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?
- g. Self-report ≥ 5 drinks consumed at one time

Table 9. Characteristics of Tier 1 method^a and less effective method users among contraceptive using women aged 18-44 years at risk for unintended pregnancy^b, N=42,295

Characteristics	Tier 1 method use N=18,216 n (row%)^c	Less effective method N=24,079 n (row%)^c	X² p-value
Demographics			
Veteran Status^d			<0.05
Veteran	352 (48.4)	339 (51.6)	
Non-military	17,864 (37.6)	23,740 (62.4)	
Age			<0.05
18-24	538 (8.0)	5481 (92.0)	
25-34	5,765 (32.2)	10,905 (67.8)	
35-44	11,913 (59.9)	7,693 (40.1)	
Marital Status^e			<0.05
Married/Coupled	13,645 (43.8)	14,336 (56.2)	
Previously Married	3,075 (54.2)	2,606 (45.8)	
Never Married	1,476 (12.9)	7,101 (87.1)	
Race/Ethnicity^e			<0.05
White, non-Hispanic	13,506 (38.9)	1,7391 (61.1)	
Black, non-Hispanic	1,774 (37.0)	2,664 (63.0)	
Hispanic	2,042 (37.6)	2,595 (62.4)	
Other/multiracial, non-Hispanic	830 (27.8)	1,318 (72.2)	
Education^e			<0.05
< High School	1773 (44.5)	1677 (55.5)	
High School Graduate	5784 (44.6)	5548 (55.4)	
> High School	10645 (33.8)	16844 (66.2)	
Employment^e			<0.05
Employed	12,313 (39.0)	16,389 (61.0)	
Unemployed	5,877 (35.8)	7,664 (64.2)	
Income^e			<0.05
<\$15,000	1,801 (36.1)	2,280 (63.9)	
\$15,000 to <\$25,000	3,033 (37.8)	3,875 (62.2)	
\$25,000 to <\$50,000	5,140 (37.6)	7,353 (62.4)	
\$50,000 or more	6,963 (40.3)	8,502 (59.7)	
Number of Children^e			<0.05
None	2,019 (16.0)	8,450 (84.0)	
1-2	10,022 (39.1)	12,472 (60.9)	
3 or more	6145 (61.1)	3147 (38.9)	
Region^f			<0.05
Northeast	3,536 (35.2)	5,398 (64.8)	
Midwest	4,044 (37.3)	5,433 (62.7)	
South	6,004 (40.2)	7,689 (59.8)	
West	4,632 (36.9)	5,559 (63.1)	
Health Plan Coverage^e			0.941
Yes	14,855 (37.8)	19,948 (62.2)	
No	3,337 (37.9)	4,090 (62.1)	
Past Year Financial Barrier to Care^{eg}			<0.05

	Yes	3,684 (42.1)	4,002 (57.9)	
	No	14,516 (36.8)	20,055 (63.2)	
Health Characteristics				
	BMI (kg/m²) category^e			<0.05
	Under or Normal Weight	8,047 (31.9)	13,226 (68.1)	
	Overweight	4,921 (42.2)	5,703 (57.8)	
	Obese	4,224 (46.7)	3,998 (53.3)	
	Smoking status^e			
	Current Smoker	5,049 (44.4)	4,944 (55.6)	<0.05
	Former Smoker	2,917 (42.4)	3,272 (57.6)	
	Never Smoker	10,218 (34.5)	15,816 (65.5)	
	Binge Drinking^{eh}			<0.05
	Yes	1,846 (28.5)	3,525 (71.5)	
	No	16,237 (39.3)	20,406 (60.7)	
	Pap Smear in last 3 years^e			<0.05
	Yes	16,317 (37.2)	22,596 (62.8)	
	No	1,837 (44.2)	1,417 (55.8)	

- a. Tier 1 methods include sterilization, intrauterine devices (IUDs), and implants. Tier 2 methods include injectables, pills, patches, rings, and diaphragm. Tier 3 methods include condoms, withdrawal, sponge, natural family planning/rhythm, and spermicide.
- b. At risk for unintended pregnancy includes women of reproductive ages (18-44) who are heterosexual, sexually active, without a prior hysterectomy, and who are not pregnant or trying to get pregnant.
- c. Unweighted numbers and weighted percentages
- d. Veterans defined as those who reported being retired, discharged, or medically discharged from military service. Non-military defined as non-veterans who are not currently on active duty or in a National Guard or Reserve Unit.
- e. Missing values not included, thus column totals might not sum to 100%. Missing values that were <5% of the variable total were excluded.
- f. Regions for states were classified using the US Census classifications. Puerto Rico and the Virgin Islands were categorized using the US Health and Human Services classifications.
- g. Represents the answer to the following question: Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?
- h. Self-report ≥ 5 drinks consumed at one time

Table 10. Characteristics of veterans aged 18-44 years at risk for unintended pregnancy^a who had and had not received healthcare at a VA in the last year, N=794

Characteristics	VA Care in last 1 year N= 112 n (row%) ^b	No VA Care in last 1 year N=682 n (row%) ^b	X ² p-value
Demographics			
Age			0.022
18-24	14 (33.6)	36 (66.4)	
25-34	46 (14.4)	274 (85.6)	
35-44	52 (8.9)	372 (91.1)	
Marital Status^c			0.375
Married/Coupled	77 (12.1)	461 (87.9)	
Previously Married	21 (21.7)	126 (78.3)	
Never Married	14 (11.9)	93 (88.1)	
Race/Ethnicity^c			0.706
White, non-Hispanic	78 (13.1)	480 (86.9)	
Black, non-Hispanic	17 (11.7)	124 (88.3)	
Hispanic	6 (11.2)	34 (88.8)	
Other/multiracial, non-Hispanic	9 (25.0)	41 (75.0)	
Education^c			0.145
< High School	4 (51.6)	4 (48.4)	
High School Graduate	17 (7.7)	148 (92.3)	
> High School	91 (14.2)	529 (85.8)	
Employment			0.927
Employed	66 (13.3)	488 (86.7)	
Unemployed	46 (13.7)	194 (86.3)	
Income^c			0.232
<\$15,000	10 (18.4)	34 (81.6)	
\$15,000 to <\$25,000	23 (24.0)	92 (76.0)	
\$25,000 to <\$50,000	39 (13.7)	239 (86.3)	
\$50,000 or more	30 (9.7)	272 (90.3)	
Number of Children^c			0.431
None	30 (17.0)	139 (83.0)	
1-2	60 (13.3)	390 (86.7)	
3 or more	22 (10.2)	151 (89.8)	
Region^d			0.073
Northeast	11 (7.8)	110 (92.2)	
Midwest	16 (7.6)	144 (92.4)	
South	61 (18.6)	265 (81.4)	
West	24 (9.2)	163 (90.8)	
Health Plan Coverage			0.856
Yes	100 (13.3)	601 (86.7)	
No	12 (14.4)	81 (85.6)	
Past Year Financial Barrier to Care^e			0.976
Yes	16 (13.3)	89 (86.7)	
No	96 (13.5)	593 (86.5)	
Health Characteristics			
BMI (kg/m²) category^c			0.801
Under or Normal Weight	54 (14.7)	308 (85.3)	

	Overweight	35 (13.8)	205 (86.2)	
	Obese	21 (11.7)	133 (88.3)	
Smoking status^c				0.810
	Current Smoker	40 (14.1)	186 (85.9)	
	Former/Never Smoker	72 (13.2)	495 (86.8)	
Binge Drinking^{cf}				0.272
	Yes	13 (22.4)	67 (77.6)	
	No	97 (12.6)	612 (87.4)	
Pap Smear in last 3 years				0.982
	Yes	107 (13.4)	638 (86.6)	
	No	5 (13.6)	44 (86.4)	

- a. At risk for unintended pregnancy includes women of reproductive ages (18-44) who are heterosexual, sexually active, without a prior hysterectomy, and who are not pregnant or trying to get pregnant.
- b. Unweighted numbers and weighted percentages
- c. Missing values not included, thus column totals might not sum to 100%. Missing values that were <5% of the variable total were excluded.
- d. Regions for states were classified using the US Census classifications. Puerto Rico and the Virgin Islands were categorized using the US Health and Human Services classifications.
- e. Represents the answer to the following question: Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?
- f. Self-report ≥ 5 drinks consumed at one time

Table 11. Characteristics of contraceptive users and non-contraceptive users among veterans aged 18-44 years at risk for unintended pregnancy^a, N=794

Characteristics	Any contraceptive method use N= 691 n (row%)^b	No contraceptive method use N=104 n (row%)^b	X² p-value
Demographics			
VA care in the last 1 year^c			0.720
Yes	96 (86.2)	16 (13.8)	
No	595 (88.4)	87 (11.6)	
Age			0.567
18-24	41 (80.9)	10 (19.1)	
25-34	284 (90.1)	36 (9.9)	
35-44	366 (88.0)	58 (12.0)	
Marital Status^c			0.630
Married/Coupled	465 (87.6)	74 (12.4)	
Previously Married	132 (91.2)	15 (8.8)	
Never Married	92 (87.0)	15 (13.0)	
Race/Ethnicity^c			0.439
White, non-Hispanic	487 (89.3)	72 (10.7)	
Black, non-Hispanic	126 (90.9)	15 (9.1)	
Hispanic	35 (72.0)	5 (28.0)	
Other/multiracial, non-Hispanic	38 (75.7)	12 (24.3)	
Education^c			0.171
< High School	8 (100.0)	0	
High School Graduate	142 (89.3)	23 (10.7)	
> High School	541 (88.1)	80 (11.9)	
Employment			0.853
Employed	479 (88.3)	75 (11.7)	
Unemployed	212 (87.5)	29 (12.5)	
Income^c			0.576
<\$15,000	38 (82.2)	6 (17.8)	
\$15,000 to <\$25,000	106 (91.9)	9 (8.1)	
\$25,000 to <\$50,000	237 (84.3)	41 (15.7)	
\$50,000 or more	261 (88.9)	42 (11.1)	
Number of Children^c			0.028
None	132 (84.8)	38 (15.2)	
1-2	394 (86.8)	56 (13.2)	
3 or more	163 (95.4)	10 (4.6)	
Region^d			0.221
Northeast	101 (92.2)	20 (7.8)	
Midwest	136 (92.7)	25 (7.3)	
South	295 (89.0)	31 (11.0)	
West	159 (76.3)	28 (23.7)	
Health Plan Coverage			0.159
Yes	613 (89.1)	89 (10.9)	
No	78 (80.4)	15 (19.6)	
Past Year Financial Barrier to Care^e			0.664
Yes	93 (85.9)	12 (14.1)	

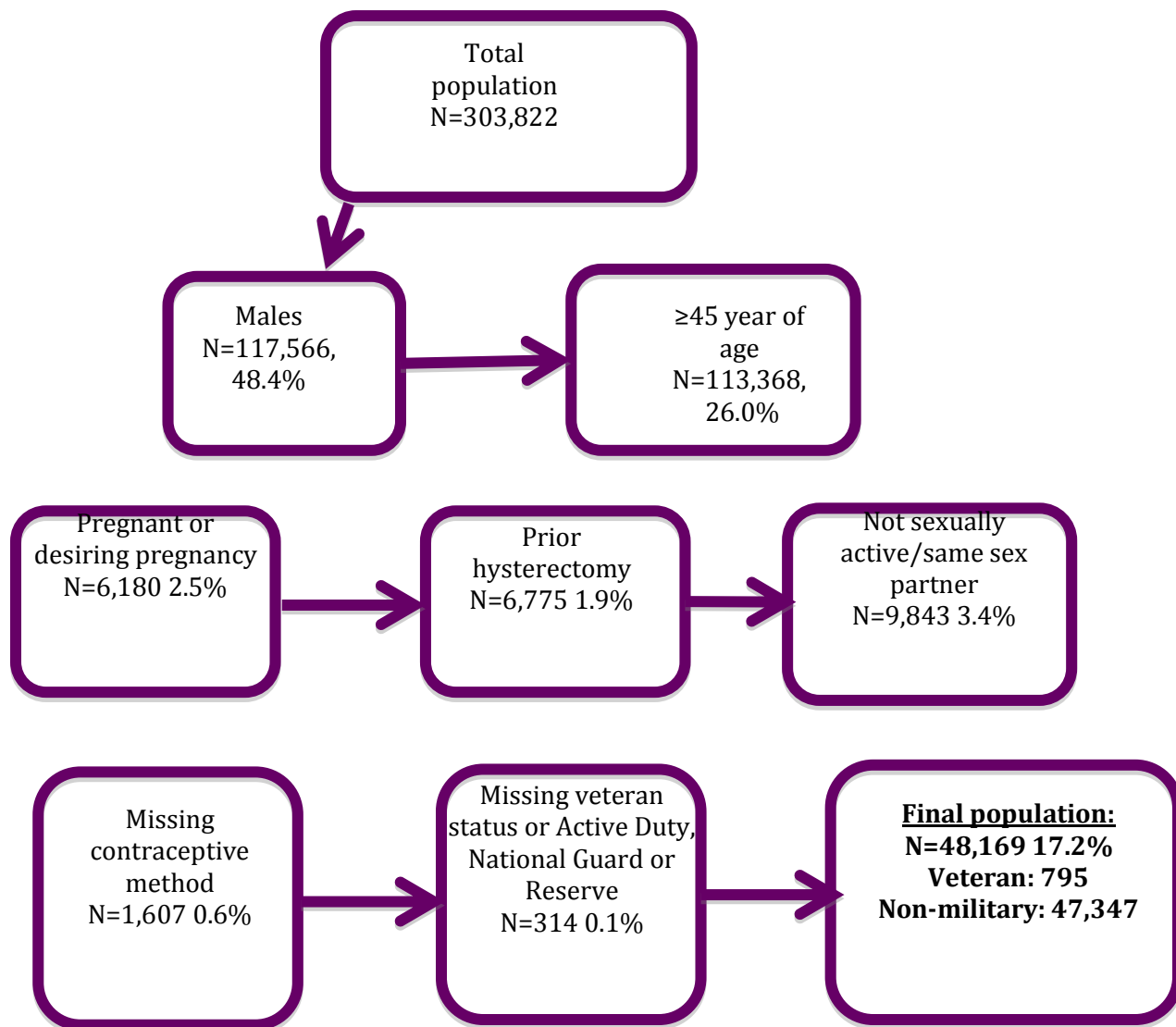
	No	598 (88.4)	92 (11.6)	
Health Characteristics				
BMI (kg/m²) category^c				0.027
Under or Normal Weight		316 (84.0)	46 (16.0)	
Overweight		216 (93.7)	25 (6.3)	
Obese		127 (85.6)	27 (14.4)	
Smoking status^c				0.659
Current Smoker		189 (86.6)	37 (13.4)	
Former/Never Smoker		501 (88.7)	67 (11.3)	
Binge Drinking^{cf}				0.758
Yes		71 (85.7)	9 (14.3)	
No		615 (88.2)	95 (11.8)	
Pap Smear in last 3 years				0.696
Yes		650 (88.0)	96 (12.0)	
No		41 (90.0)	8 (10.0)	

- At risk for unintended pregnancy includes women of reproductive ages (18-44) who are heterosexual, sexually active, without a prior hysterectomy, and who are not pregnant or trying to get pregnant.
- Unweighted numbers and weighted percentages
- Missing values not included, thus column totals might not sum to 100%. Missing values that were <5% of the variable total were excluded.
- Regions for states were classified using the US Census classifications. Puerto Rico and the Virgin Islands were categorized using the US Health and Human Services classifications.
- Represents the answer to the following question: Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?
- Self-report ≥ 5 drinks consumed at one time

Appendix B

Figures

Figure 1. Exclusion criteria (unweighted numbers, and weighted percentages) of 2004 Behavioral Risk Factor Surveillance Survey (BRFSS) to target population of women aged 18-44 at risk for an unintended pregnancy, N=48,169.



**Figure 2. 2004 Behavior Risk Factor Surveillance Survey (BRFSS)
Veteran Status and Family Planning Module Questions**

Veteran Status:

Prologue: The next question relates to military service in the United States Armed Forces, either in the regular military or in a National Guard or Reserve unit.

Description: Have you ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit?

Options:

- Yes
- No
- Do not know/Not Sure
- Refused
- Not asked or Missing

Current Veteran Status

Prologue: none

Description: Which of the following best describes your service in the United States military?

Options:

- Currently on active duty
- Currently in a National Guard or Reserve unit
- Retired from military service
- Medically discharged from military service
- Discharged from military service
- Don't know/Not Sure
- Refused
- Not asked, Module not used, or Missing

Family Planning:

Contraceptive Users

Prologue: Some things people do to keep from getting pregnant include not having sex at certain times, using birth control methods such as the pill, implants, shots, condoms, diaphragm, foam, IUD, having their tubes tied, or having a vasectomy.

Description: Are you or your [if female, insert husband/partner, if male, insert wife/partner] doing anything now to keep [if female, insert husband/partner, if male, insert wife/partner] from getting pregnant?

Options:

- Yes
- No
- No partner/not sexually active
- Do not know/not sure
- Refused
- Not asked/missing

Contraceptive Method

Prologue: None

Description: What are you or your [if female, insert husband/partner, if male, insert wife/partner] doing now to keep [if female, insert husband/partner, if male, insert wife/partner] from getting pregnant?

Options:

- Tubes tied
- Hysterectomy
- Vasectomy
- Pills
- Condoms
- Contraceptive implants (Jadelle or Implants)
- Shots (Depo Provera)
- Shots (Lunelle)
- Contraceptive Patch
- Diaphragm, cervical ring, or cap (Nuvaring or others)
- IUD (Including Mirena)
- Emergency contraception (EC)
- Withdrawal
- Not having sex at certain times (rhythm)
- Other method (foam, jelly, cream, etc.)
- Don't know / Not sure
- Refused
- Not asked or Missing

Reasons for not using contraception

Prologue:

Description: What is the main reason for not doing anything to keep [if female, insert you, if male, insert your wife/partner] from getting pregnant?

Options:

- Didn't think was going to have sex/no regular partner
- You want a pregnancy
- You or your partner don't want to use birth control
- You or your partner don't like birth control/fear side effects
- You can't pay for birth control
- Lapse in use of a method
- Don't think you or your partner can get pregnant
- You or your partner had tubes tied (sterilization)
- You or your partner had a vasectomy (sterilization)
- You or your partner had a hysterectomy
- You or your partner are too old
- You or your partner are currently breast-feeding
- You or your partner just had a baby/postpartum
- Other reason
- Don't care if get pregnant
- Partner is pregnant now
- Do not know/Not sure
- Refused

- Not asked or Missing