

RESEARCH UPDATE ON CARDIOVASCULAR HEALTH IN WOMEN VETERANS: IDENTIFYING AND MANAGING RISK FACTORS

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Nancy Maher, PhD

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Tannaz Moin, MD, MBA, MSHS

Laura Damschroder, MPH

Lesley D Lutes PhD, R. Psych

Sally Haskell, MD

Agenda

- **Introduction**
 - Bevanne Bean-Mayberry MD, MHS
- **Highlights from the 2017 State of Cardiovascular Health in Women Veterans Report**
 - Nancy Maher, PhD
- **Characteristics & Preferences Associated with CVD Risk in Women Veterans**
 - Karen M Goldstein, MD MSPH
- **Tailoring VA's Diabetes Prevention Program to Women Veterans' Needs**
 - Tannaz Moin, MD MBA MSHS
- **Weight loss among women and men in the ASPIRE-VA behavioral weight loss intervention trial**
 - Laura Damschroder MPH, MS & Lesley D Lutes PhD, R. Psych
- **Discussion**
 - Sally Haskell MD

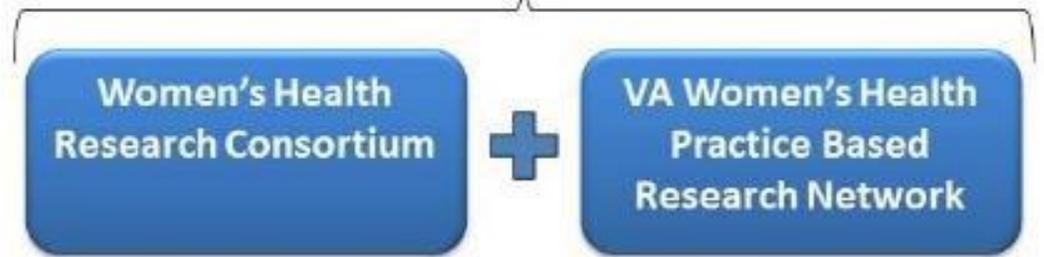
Introduction

Bevanne Bean-Mayberry, MD MHS
Greater Los Angeles VAMC



Objective

To provide an overview of recent findings from the women Veteran cardiovascular health literature and describe the implications for future research and direct clinical care



Strategic Priority Areas (SPAs) and SPA Work Groups

| Access/ Rural Health | Primary Care/ Prevention | Mental Health | Post- Deployment Health | Complex Chronic Conditions | Reproductive Health |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">• Access health• Rural health | <ul style="list-style-type: none">• PC/PACT• PC/MH integration• CVD risk reduction | <ul style="list-style-type: none">• PTSD• MST• SUD• IPV | <ul style="list-style-type: none">• OEF/OIF WVs• Active duty/ Nat'l Guard/ Reserves | <ul style="list-style-type: none">• Chronic pain• Chronic care• Breast cancer• LTC/aging | <ul style="list-style-type: none">• Reproductive health• LGBT |

Women Veterans CVD Risk Reduction Workgroup

Teleconference every other month on 3rd Monday
12pm PST/3pm EST

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Poll Question 2 (select all that apply)

- What Cardiovascular Disease issue for Women Veterans is most relevant for your current research or clinical practice?
 - Improving blood pressure control
 - Convincing women to use lipid control medications
 - Preventing progression to diabetes
 - Engaging women to achieve health behavior change goals
 - Raising awareness among women of their personal CVD risk

Highlights from the 2017 State of Cardiovascular Health in Women Veterans Report

Nancy Maher, PhD

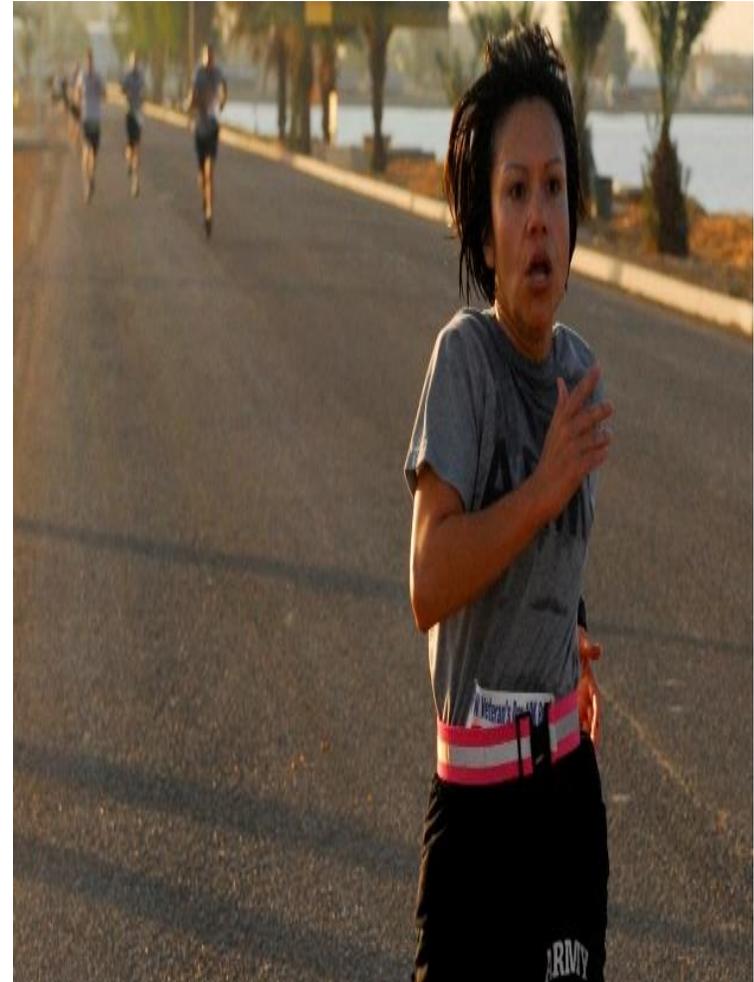
Program Analyst, Women's Health Services

State of Cardiovascular Health in Women Veterans Report. Volume 2: Risk Factors, Diagnoses, and Procedures in FY 2014

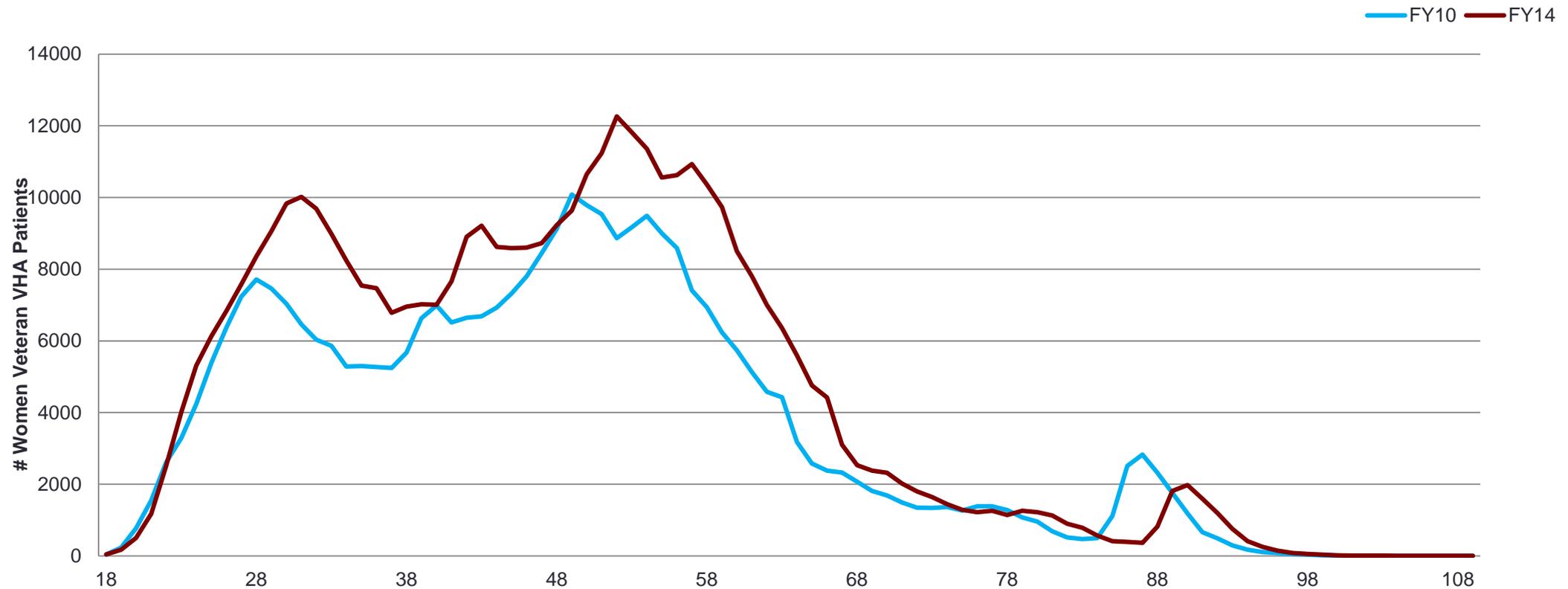
- 2nd volume in a series produced by VHA Women's Health Services and the Women's Health Evaluation Initiative (WHEI) VA Palo Alto
- This volume reports on the prevalence of cardiovascular risk factors, conditions, and procedures in women Veterans using VHA
- Different from first volume in two key ways:
 - Includes data not only from FY 2014 VHA Outpatient files, but also FY 2014 VHA inpatient files as well as FY 2014 Non-VA medical outpatient and inpatient files
 - Reports on cardiovascular disease risk factors and conditions stratified by age, sex, and ethnicity

Women Veteran Patient Demographics, FY 14

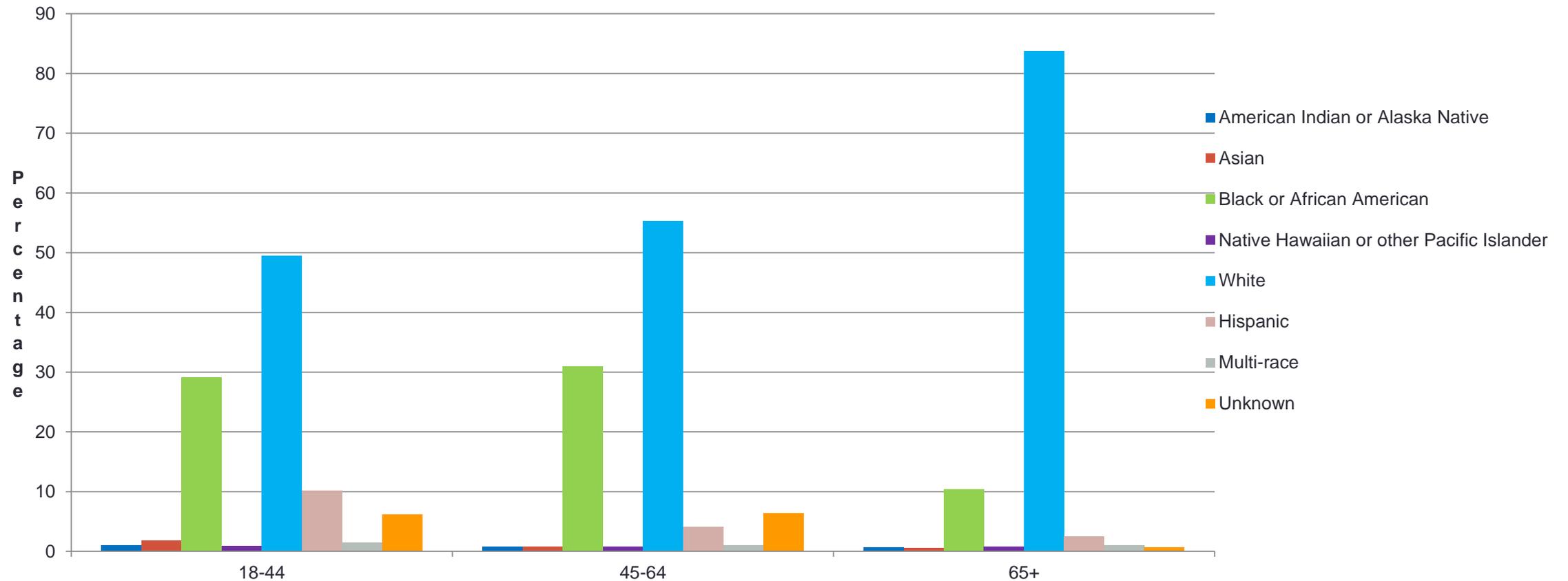
- The number of women Veterans using VHA grew 30% between FY 10 and FY 14 from 316,903 in FY10 to 412,901 in FY14
- In FY 14, nearly 29% of younger women Veteran patients (aged 18-44) were African American and 10% were Hispanic, compared with 10% African American and 2% Hispanic in the older women Veteran age group (65+)



Age distribution among women Veteran VHA patients, FY10 through FY14

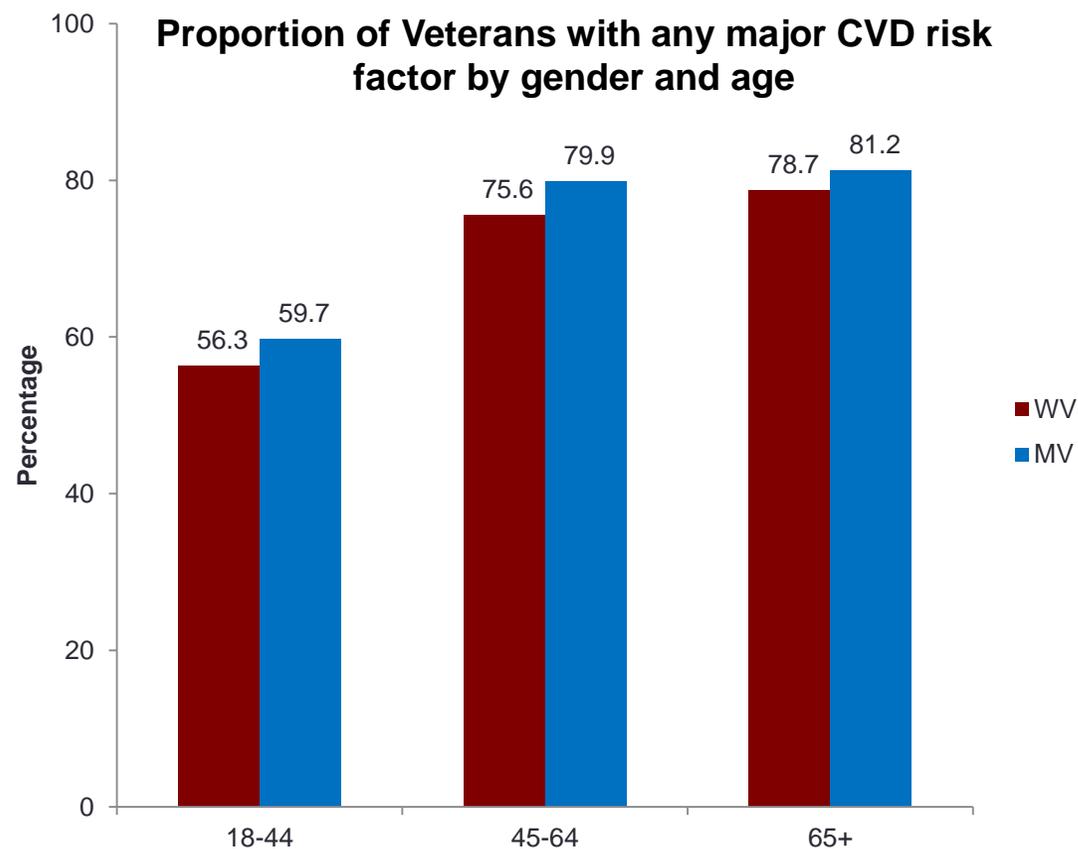


Racial/ethnic distribution of women Veteran VHA patients by age, FY14



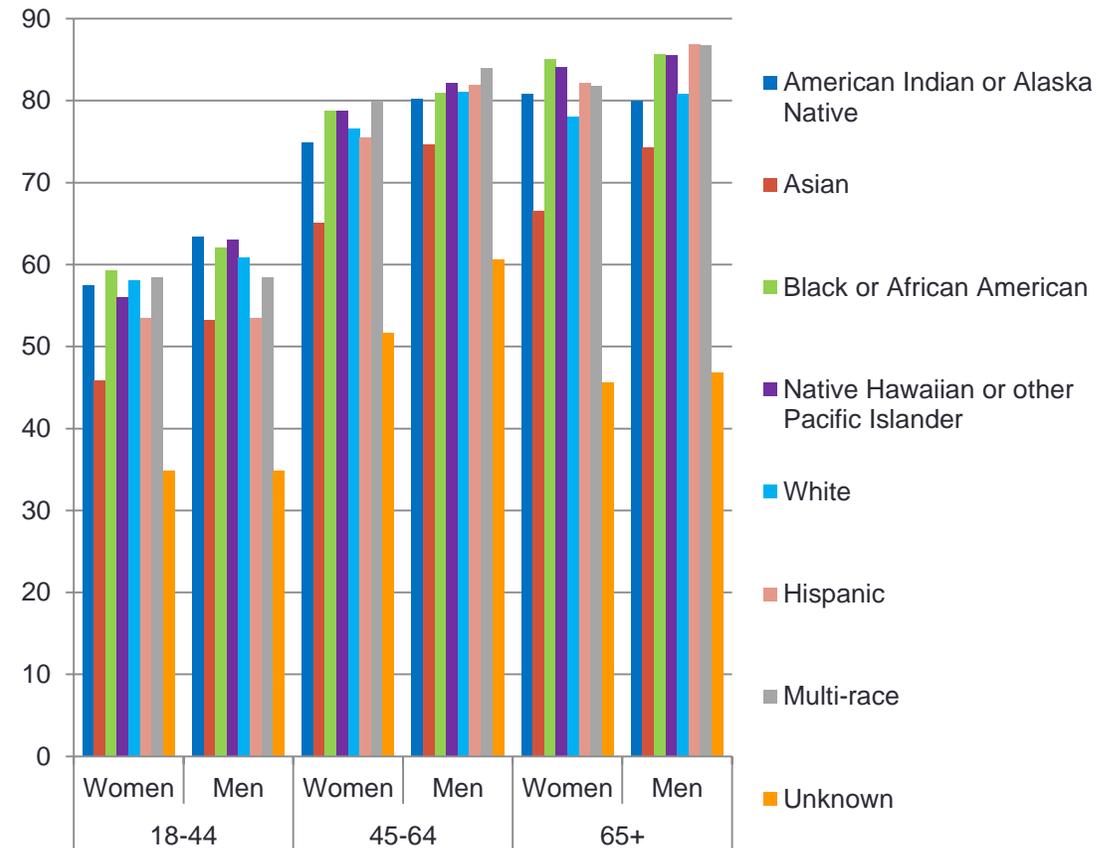
Cardiovascular Risk Factors by Gender, FY 14

- In FY14, the proportion of both women and men Veterans with at least one diagnosed CVD risk factor was high, at least 56%, across all age groups.
- Nearly 80% of women Veterans aged 65+ had a diagnosis of a major CVD risk factor.



Cardiovascular Risk Factors by Gender and Race/Ethnicity, FY 14

- Across both genders and all race/ethnicity categories, the frequency of any major CVD risk factor increased with age.
- Generally speaking, women have lower frequencies of having at least one CVD risk factor across all race/ethnicity groups than do men in the same age group.



Age-adjusted odds ratios (and 95% CI) for cardiovascular risk factors in women vs. men, FY14

| | Total Women | 18-44 | 45-64 | 65-74 | 75-84 | 85+ |
|---------------------------------------------|-------------|-------------|--------------|-------------|-------------|-------------|
| Any Major Cardiovascular Risk Factor | 0.81 | 0.87 | 0.90 | 0.84 | 0.96 | 1.02 |
| | (0.80-0.81) | (0.86-0.88) | (0.89-0.91) | (0.82-0.87) | (0.92-1.01) | (0.97-1.06) |
| Dyslipidemia | 0.61 | 0.47 | 0.74 | 0.83 | 0.86 | 0.87 |
| | (0.61-0.62) | (0.46-0.47) | (0.73-0.75) | (0.81-0.85) | (0.83-0.90) | (0.84-0.91) |
| Diabetes | 0.57 | 0.70 | 0.69 | 0.72 | 0.74 | 0.67 |
| | (0.57-0.58) | (0.68-0.72) | (0.68-0.70) | (0.70-0.74) | (0.70-0.77) | (0.63-0.71) |
| Hypertension | 0.63 | 0.57 | 0.68 | 0.78 | 0.99 | 1.11 |
| | (0.63-0.64) | (0.56-0.58) | (0.675-0.69) | (0.76-0.80) | (0.95-1.03) | (1.07-1.15) |
| Depression | 1.64 | 1.52 | 1.74 | 1.87 | 1.98 | 1.47 |
| | (1.63-1.65) | (1.51-1.54) | (1.72-1.76) | (1.81-1.92) | (1.88-2.09) | (1.38-1.57) |
| PTSD | 0.92 | 0.77 | 1.44 | 0.65 | 0.99 | 0.16 |
| | (0.91-0.92) | (0.76-0.78) | (1.42-1.45) | (0.62-0.67) | (0.86-1.13) | (0.12-0.22) |

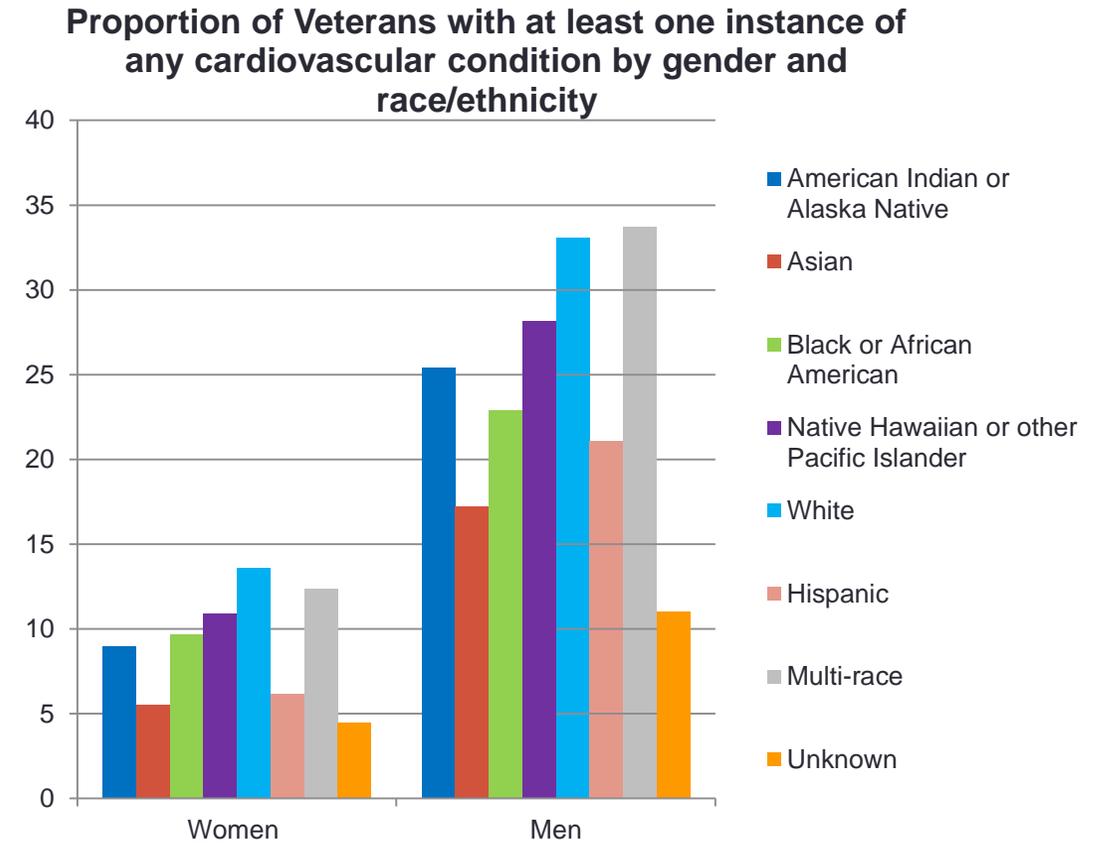
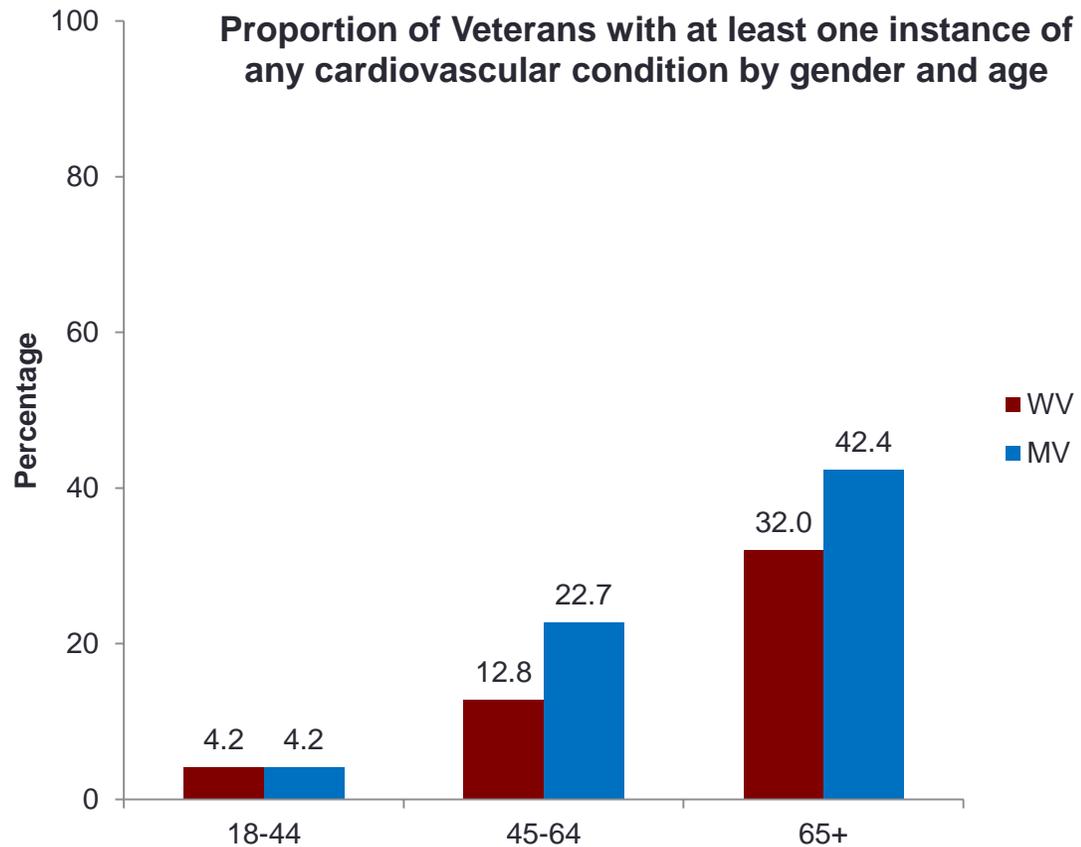
CVD Risk Factors – Key Points

- Despite the lower frequency of CVD in women, nearly 80% of women Veterans ages 65+ had a diagnosis of a major CVD risk factor.
 - More than 50% of women ages 65+ had a diagnosis of dyslipidemia.
 - Nearly 24% had a diagnosis of diabetes.
 - Nearly 60% had a diagnosis of hypertension.
 - The prevalence of hypertension in African-American women Veterans was noticeably higher than in other racial/ethnic groups across all age groups.
 - The most common risk factors for CVD in both women and men Veterans in the two oldest age groups (44-64 and 65+) were dyslipidemia and hypertension.

CVD Risk Factors – Key Points

- Depression and Posttraumatic Stress Disorder (PTSD), although not considered traditional risk factors, are associated with higher CVD risk.
 - Women Veterans had a higher frequency of depression across all age groups than men, especially in the 18-44 and 45-64 age groups.
 - Men Veterans had higher frequencies of PTSD than women Veterans in the youngest (18-44) and oldest (65+) age groups, but women had a higher frequency of PTSD in the middle age group (17% vs. 13%).
 - Across genders and age groups, American Indian/Alaska Native Veterans have among the highest rates of PTSD.
 - For the youngest age group (18-44), the most common risk factor for women Veterans was depression and the most common risk factor for men was PTSD.

Prevalence of Cardiovascular Conditions in Veteran VHA Patients, FY 14

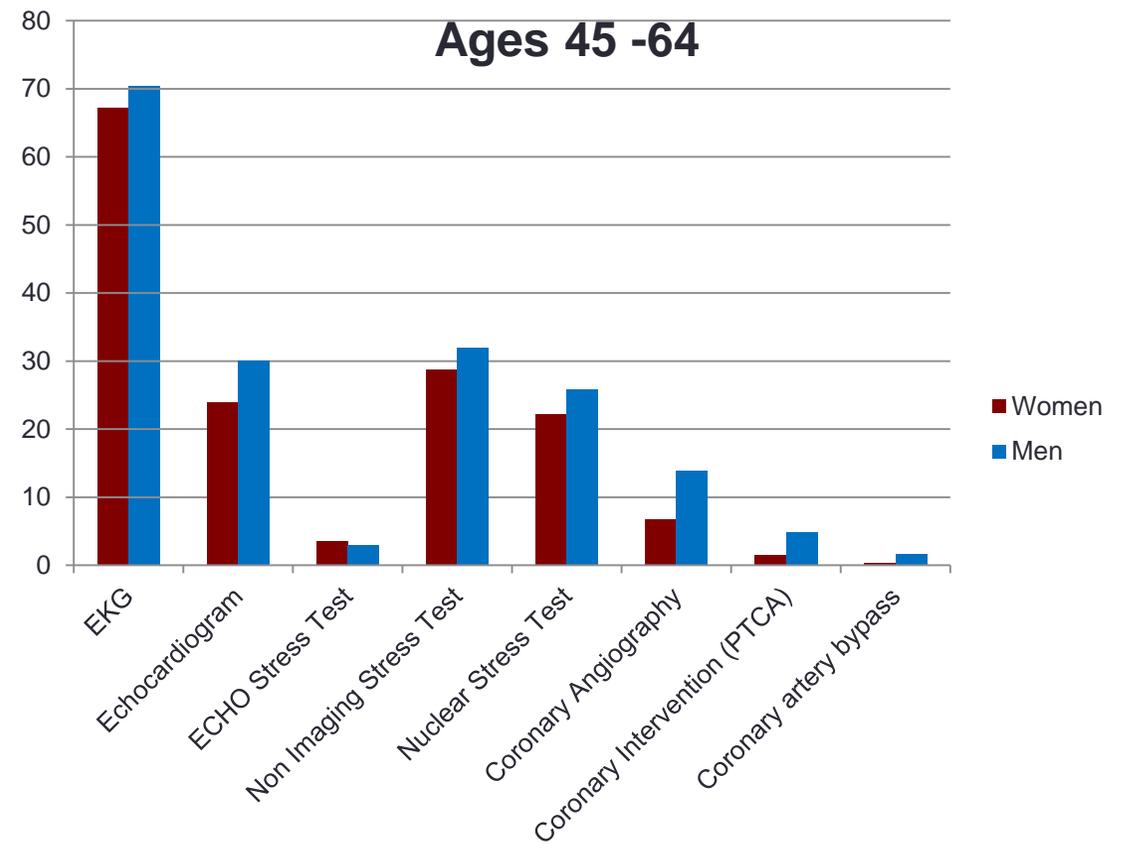
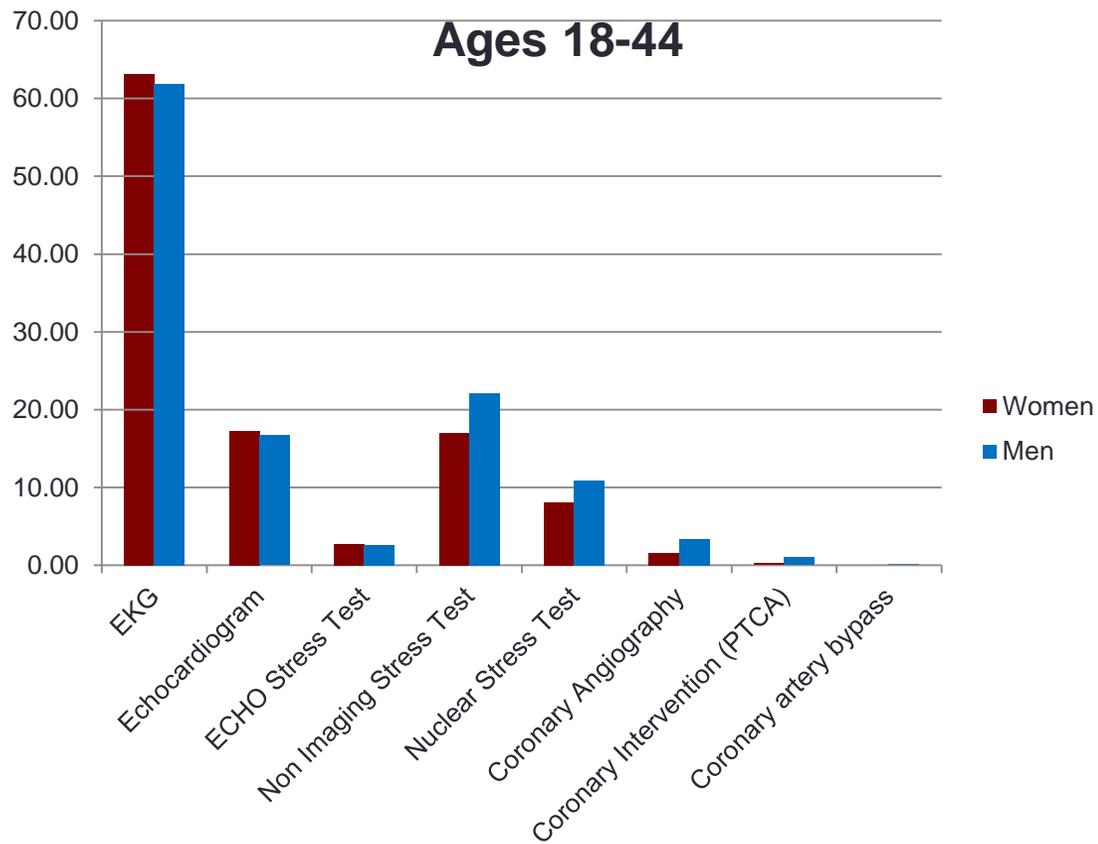


Age-adjusted ORs (and 95% CI) for cardiovascular conditions in women vs. men, FY14

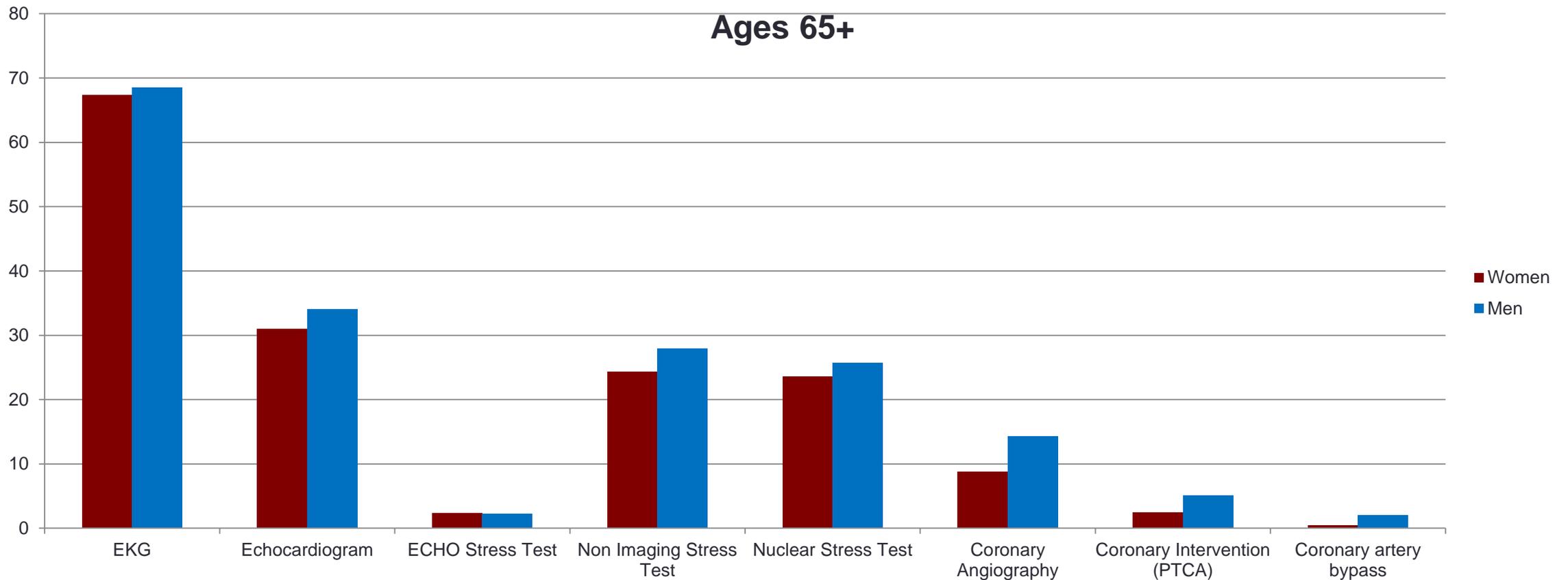
- In the age-adjusted analysis, women were more likely to be diagnosed with chest pain/angina, palpitations, and valvular disease across all age groups, with the exception of valvular disease in the 85+ age group
- Conversely, women Veterans were less than half as likely to be diagnosed with coronary artery disease than men Veterans of the same age

| | Total Women | 18-44 | 45-64 | 65-74 | 75-84 | 85+ |
|--------------------------------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|
| Any Cardiovascular Disease Condition (Aggregate) | 0.60 (0.59-0.602) | 1.00 (0.98-1.03) | 0.64 (0.63-0.65) | 0.59 (0.58-0.61) | 0.67 (0.64-0.69) | 0.72 (0.69-0.75) |
| Chest Pain / Angina | 1.03 (1.02-1.05) | 1.04 (1.01-1.08) | 1.07 (1.05-1.09) | 1.27 (1.21-1.34) | 1.60 (1.47-1.75) | 1.28 (1.15-1.43) |
| Palpitations | 2.04 (1.98-2.10) | 1.85 (1.77-1.95) | 2.19 (2.10-2.28) | 2.56 (2.32-2.84) | 2.78 (2.27-3.40) | 1.74 (1.23-2.46) |
| Coronary Artery Disease | 0.29 (0.29-0.30) | 0.41 (0.37-0.45) | 0.34 (0.33-0.35) | 0.38 (0.37-0.40) | 0.42 (0.40-0.45) | 0.47 (0.44-0.49) |
| Heart Failure (Non Pulmonary Heart Disease) | 0.55 (0.53-0.56) | 0.61 (0.56-6.8) | 0.50 (0.49-0.52) | 0.71 (0.67-0.75) | 0.91 (0.84-0.98) | 0.93 (0.87-0.995) |
| Atrial Fibrillation / Atrial Flutter | 0.46 (0.45-0.47) | 0.392 (0.34-0.46) | 0.368 (0.35-0.39) | 0.57 (0.54-0.61) | 0.797 (0.75-0.85) | 0.958 (0.91-1.01) |
| Tachycardia / Arrhythmia/ Other | 0.963 (0.94-0.98) | 1.272 (1.22-1.33) | 0.961 (0.93-0.99) | 0.915 (0.86-0.98) | 1.038 (0.95-1.14) | 0.951 (0.87-1.04) |
| Valvular Disease (Non Endocarditis) | 1.05 (1.02-1.08) | 1.527 (1.42-1.64) | 1.188 (1.14-1.23) | 1.085 (1.01-1.16) | 1.103 (1.01-1.20) | 1.085 (0.999-1.18) |
| Conduction Disorders | 0.862 (0.83-0.89) | 0.879 (0.81-0.95) | 0.901 (0.86-0.95) | 0.944 (0.85-1.05) | 0.952 (0.81-1.11) | 1.035 (0.9-1.19) |
| Arrhythmia / Conduction Disorder / Afib flutter Other | 0.74 (0.73-0.75) | 1.056 (1.02-1.10) | 0.731 (0.71-0.75) | 0.703 (0.67-0.74) | 0.825 (0.78-0.87) | 0.883 (0.84-0.93) |

Proportion of Veteran VHA patients with at least one instance of chest pain/angina receiving CVD procedures by gender, FY 14

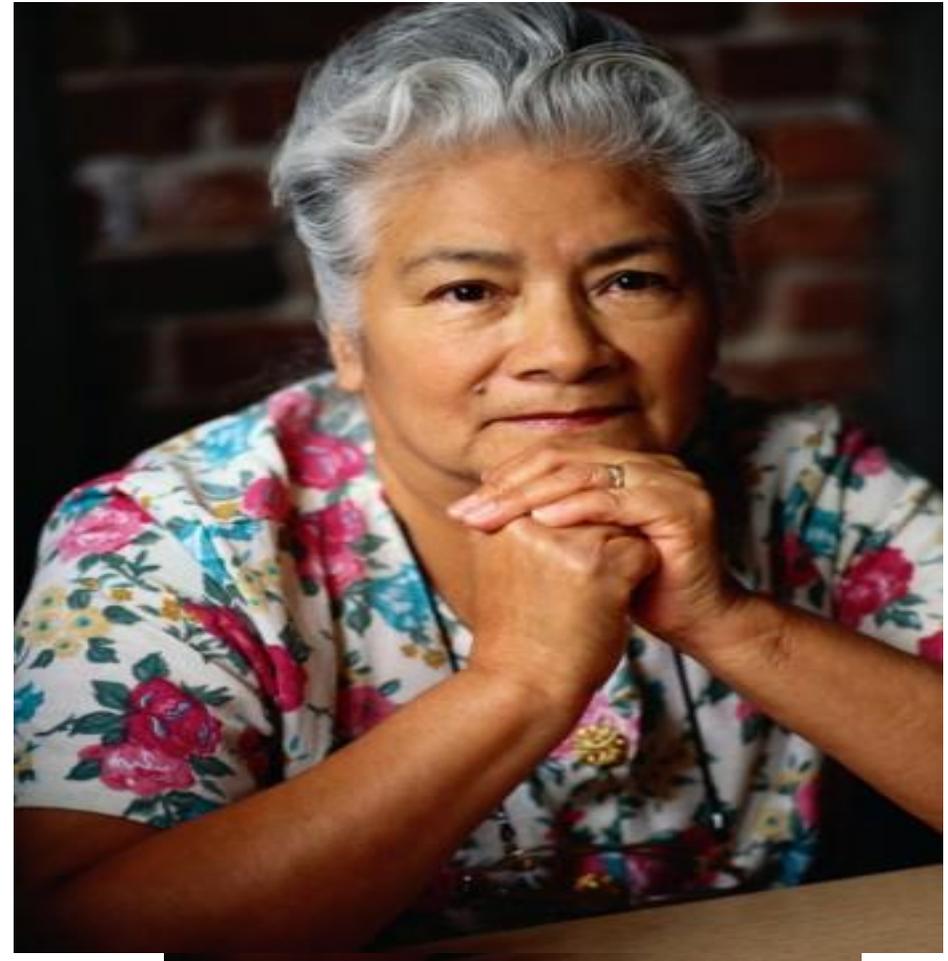


Proportion of Veteran VHA patients with at least one instance of chest pain/angina receiving CVD procedures by gender, FY 14



Key Implications for Policy and Practice

- If growth continues at its current pace, and especially if market penetration increases among the large group of women Veterans who currently do not use the VHA, increasing demands on VHA cardiovascular care delivery systems for women are anticipated.
- In a little more than a decade, the largest group of women Veterans will be nearing their 70s. These women will require more intensive health services as they age, including CVD care.
- VHA must meet the needs of the 45-64 and 65+ women Veteran population who are at risk for developing CVD by ensuring provision of state-of-the-art CV services, including diagnosis and treatment of CVD.



Key Implications for Policy and Practice



- With the influx of younger women Veterans into VA, prevention and treatment of risk factors for CVD, such as diabetes, hypertension, dyslipidemia, obesity, depression, PTSD, and tobacco use, must be addressed.
- Younger women Veterans are more ethnically and racially diverse than the older age groups or men, highlighting the need to target prevention and treatment strategies to at-risk populations.
- The high proportion of both women and men Veterans with CVD risk factors — from 56% to 82% — warrants strong programs for prevention and treatment in both genders.

Key Implications for Policy and Practice

- Women Veterans are more likely than men of the same age group to be diagnosed with chest pain/angina, palpitations, and valvular disease, but they are less likely to be diagnosed with coronary artery disease (CAD). Fewer women with chest pain receive invasive procedures than men to diagnose and treat these conditions, but more women than men with diagnosed CAD receive these procedures.
- These findings may be related to a higher prevalence of non-cardiac chest pain in women or under-recognition or underdiagnosis of CAD.





CHARACTERISTICS AND PREFERENCES ASSOCIATED WITH CVD RISK AMONG WOMEN VETERANS

Karen M. Goldstein, Eugene Z. Oddone, Lori A. Bastian, Maren K Olsen, Bryan C. Batch, Donna L. Washington. *Women's Health Issues*. 2017: 700-706.

Objectives

- 1) Describe health care use and preferences, health behaviors, and comorbidities among women Veterans at risk for cardiovascular disease (CVD) compared with those not at risk for CVD
- 2) Explore the relationship between CVD risk status and comorbid conditions, CVD health behaviors, and health care use characteristics and preferences

National Survey of Women Veterans

(PI – Donna Washington MD, MPH)

- Cross-sectional national telephone survey
- Conducted 2008-2009
- Population-based, stratified random sample
 - Stratified by use/non-use of VHA and military service period
- Sampling frame from VHA, VBA, DOD databases
- Included regular armed forces, national guard/reserves and active duty
- 3,611 women age 18 years or older



3 Mutually Exclusive Populations

- **History of Cardiovascular Disease**
 - Reported history of heart attack, stroke or congestive heart failure
- **At risk for Cardiovascular Disease**
 - Diagnosis of hypertension, and/or diabetes, and/or current smoking, and/or calculated BMI \geq 30
- **Not at risk for Cardiovascular Disease**
 - Doesn't meet criteria for history of CVD or at risk for CVD

3 Mutually Exclusive Populations

- ~~History of Cardiovascular Disease~~
 - ~~Reported history of heart attack, stroke or congestive heart failure~~
- **At risk** for Cardiovascular Disease
 - Diagnosis of hypertension, and/or diabetes, and/or current smoking, and/or calculated BMI ≥ 30
- **Not at risk** for Cardiovascular Disease
 - Doesn't meet criteria for history of CVD or at risk for CVD

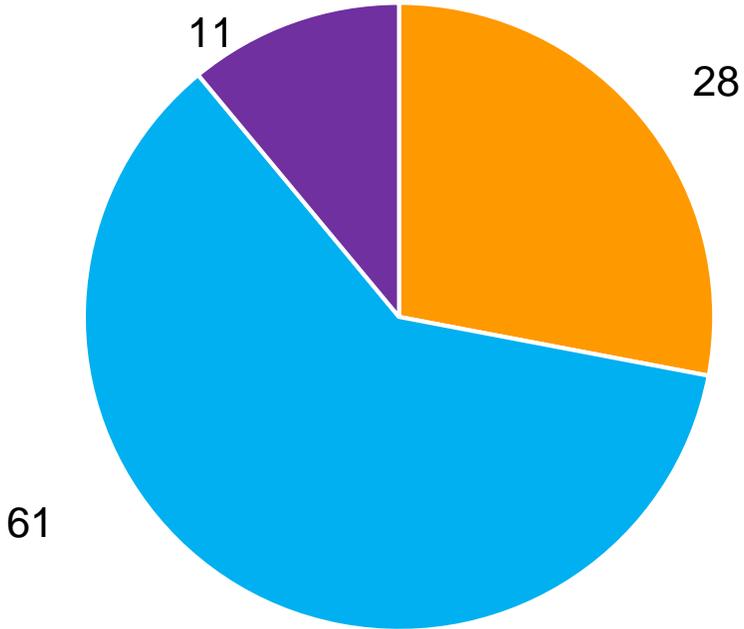
Characteristics of Women Veterans by CVD Risk category

| | All 100% (N = 3,611) | Not at Risk for CVD 36% (N = 1236) | At Risk for CVD 54% (N = 1923) | History of CVD 10% (N = 428) |
|-------------------------------------|----------------------------|---------------------------------------------|-----------------------------------------|------------------------------------|
| Mean Age in years (s.d.) | 56 (17.7) | 51 (17.1) | 56 (16.4) | 73 (15.8) |
| Race-ethnicity (%) | | | | |
| Non-Hispanic White | 77 | 79 | 75 | 81 |
| Non-Hispanic Black | 11 | 9 | 14 | 5 |
| Other | 12 | 12 | 12 | 14 |
| Marital Status, current (%)* | | | | |
| Married/partnered | 58 | 62 | 61 | 24 |
| Not married/partnered | 43 | 29 | 38 | 77 |
| College Graduate (%)** | 47 | 58 | 42 | 40 |
| Employed (%)* | 46 | 58 | 45 | 6 |
| Below 100% FPL (%)** | 6 | 3 | 6 | 16 |

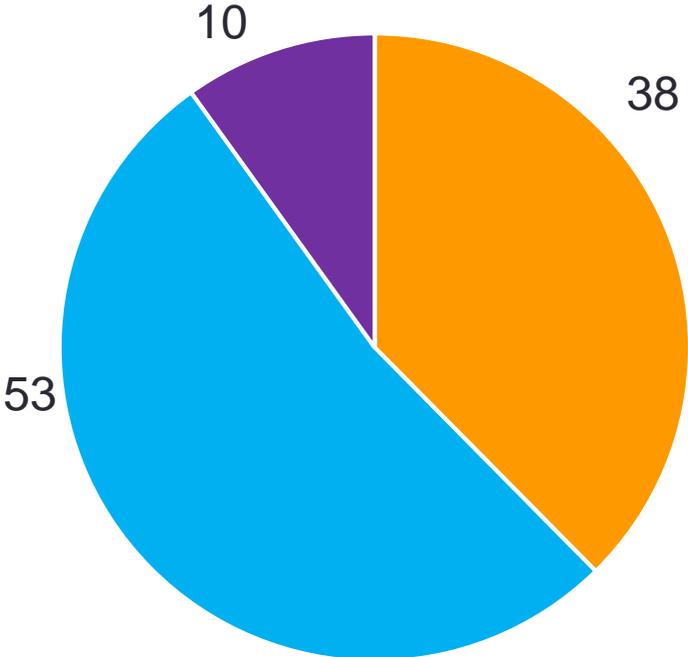
Percents are weighted/ n's are unweighted; * p<0.001; **p<0.01; ***p<0.05 for groupwise comparisons

CVD status by VA use

VA Users

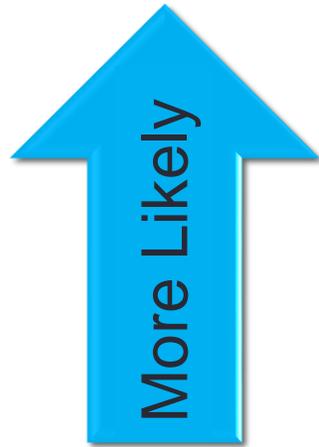


Non-VA Users

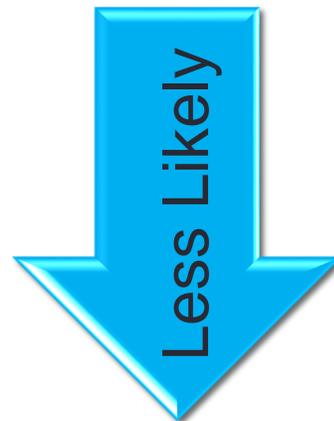


- Not at risk for CVD
- At risk for CVD
- History of CVD

WV at risk for CVD compared to not at risk

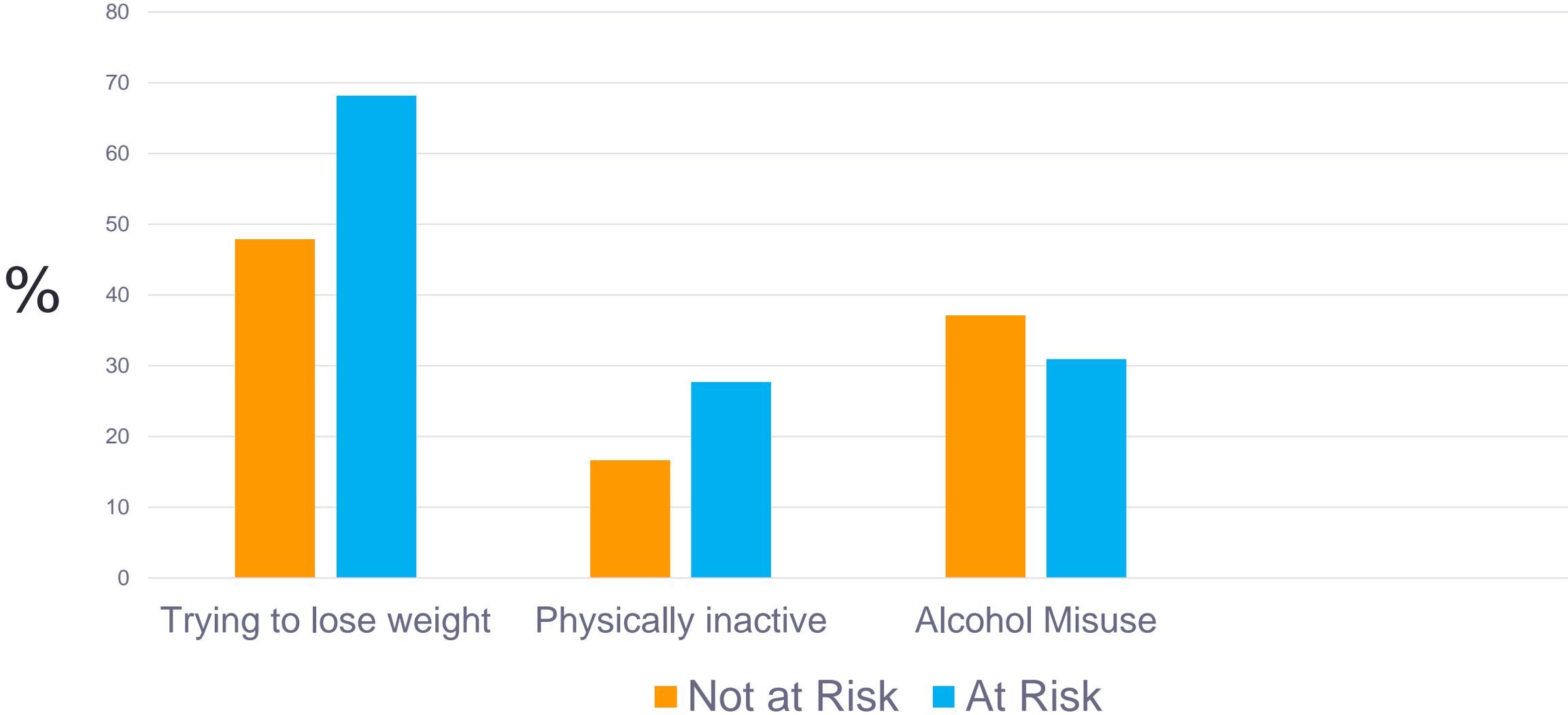


Older
VA Healthcare Use
Outpatient visits



College Graduate
Employed
Very Good Self-Reported Health

Reported Health Behaviors by CVD risk



Unadjusted Odds Ratios for Being at Risk for CVD (n = 2,618)

| | Unadjusted ORs (95% CI) | Adjusted ORs (95% CI) |
|-----------------------------------|-------------------------|-----------------------|
| Age (continuous) | 1.0 (1.0-1.0) | |
| College Graduate | 0.5 (0.3 – 0.8) | |
| Employed | 0.6 (0.4-0.9) | |
| Any VA Use | 1.6 (1.2-2.1) | |
| Physical Inactivity | 1.9 (1.1-3.3) | |
| Importance Gender-Specific Clinic | 2.0 (1.2-3.4) | |
| VA women’s weight loss program | 1.8 (1.1-2.9) | |
| Current Depression Symptoms | 2.5 (1.1 -6.1) | |
| Current PTSD symptoms | 2.4 (1.2 – 4.8) | |
| Current Anxiety symptoms | 2.1 (1.2 – 3.6) | |

Unadjusted Odds Ratios for Being at Risk for CVD (n = 2,618)

| | Unadjusted ORs (95% CI) | Adjusted ORs (95% CI) |
|-----------------------------------|-------------------------|-----------------------|
| Age (continuous) | 1.0 (1.0-1.0) | 1.0 (1.0-1.0) |
| College Graduate | 0.5 (0.3 – 0.8) | 0.6 (0.3-1.0) |
| Employed | 0.6 (0.4-0.9) | 1.0 (0.5-1.8) |
| Any VA Use | 1.6 (1.2-2.1) | 1.1 (0.8-1.6) |
| Physical Inactivity | 1.9 (1.1-3.3) | 1.6 (0.9 -2.9) |
| Importance Gender-Specific Clinic | 2.0 (1.2-3.4) | 2.0 (1.1 – 3.4)* |
| VA women’s weight loss program | 1.8 (1.1-2.9) | 1.9 (1.1 – 3.2)* |
| Current Depression Symptoms | 2.5 (1.1 -6.1) | 1.3 (0.4 -4.5) |
| Current PTSD symptoms | 2.4 (1.2 – 4.8) | 2.5 (1.1 -5.3)* |
| Current Anxiety symptoms | 2.1 (1.2 – 3.6) | 1.7 (0.8 – 3.5) |

* Variables with OR with p<0.05



Risk for CVD is common among Women Veterans



WV VA-Users are more likely to be at risk for CVD than WV *non*-VA users



Preferences for gender-specific care and PTSD symptoms were associated with being at risk for CVD



Risk for CVD is common among Women Veterans



WV VA-Users are more likely to be at risk for CVD than WV *non-VA* users



Preferences for gender-specific care and PTSD symptoms were associated with being at risk for CVD

Implications

- WH Clinics may be a good place for CVD prevention for women Veterans
- Non-VA providers need to be aware of population specific CVD and care preferences

Funding

This study was funded by Women's Health Services in the Office of Patient Care Services, of the Veteran's Health Administration (VHA), and by the Veterans Administration Health Services Research and Development Service (VA HSR&D; Project #SDR-08-270). Dr. Goldstein's effort is supported by VA HSR&D CDA 13-263. This study was also supported by the Center of Innovation for Health Services Research in Primary Care (CIN 13-410) at the Durham VA Medical Center.

Acknowledgements: Su S. Mor, W. Neil Steers, and Mark Canning



Tailoring VA's Diabetes Prevention Program to Women Veterans' Needs

Tannaz Moin, MD, MBA, MSHS

Assistant Professor, David Geffen School of Medicine at UCLA

Division of Endocrinology, Diabetes and Metabolism

Core Investigator, HSR&D Center for the Study of Healthcare Innovation, Implementation & Policy

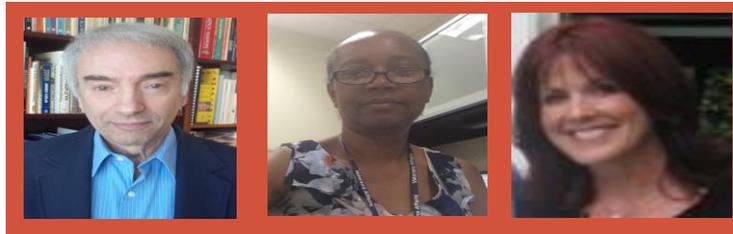
VA Greater Los Angeles Healthcare System

EMPOWER QUERI:

Enhancing Mental and Physical Health of Women through Engagement and Retention

QUE 15-272, PI: Drs. Alison Hamilton, Bevanne Bean-Mayberry, Tannaz Moin

EMPOWER DPP Co-PI: Dr. Sally Haskell

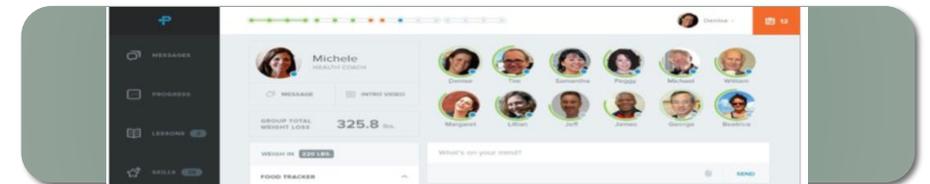


Specific Aims

- Leverage GLA DPP experience to implement a 6-month tailored DPP intervention for “40” women Veterans with prediabetes
- Eligible women Veterans with prediabetes offered a choice between:
 - Peer-led, in-person DPP
 - Online DPP

Peer-led, in-person DPP

Coach = Woman Veteran with prediabetes who completed DPP



Specific Aims (Cont.)

- Use mixed methods to:
 - Document the implementation process
 - Identify barriers and facilitators to adoption, acceptability, feasibility, and satisfaction
 - Assess women Veterans' activation as well as engagement and retention in the tailored DPP interventions

Recruitment

71% (n=216) expressed interest

**Project expanded
40 → 119 participants**

| Baseline Characteristics | In-person N=51 | Online N=68 |
|----------------------------------|-------------------|----------------|
| Mean age (years) | 58 | 54 |
| Race | | |
| • Caucasian | 25% (13) | 49% (33) |
| • AA | 57% (29) | 34% (23) |
| • American Indian | 0% (0) | 3% (2) |
| • Asian | 2% (1) | 2% (1) |
| • Decline/Unknown | 16% (8) | 13% (9) |
| Ethnicity | | |
| • Hispanic or Latino | 18% (9) | 16% (11) |
| • Non-Hispanic/Latino | 80% (41) | 74% (50) |
| • Decline/Unknown | 2% (1) | 10% (7) |
| Mean A1c (%) | 5.95 | 5.9 |
| Mean BMI (kg/m ²) | 32 | 33 |
| Average Number of Co-morbidities | 4 | 2 |
| Service Connected \geq 50% | 45% (23) | 43% (29) |
| VA Primary Care Sites | 4 | 11 |

Preliminary Quantitative Findings

- ≈ 1 in 3 were aware of their prediabetes diagnosis prior to EMPOWER (30%, n=92)
- Very few had tried a prior lifestyle intervention (16%, n=49)

| | In-person DPP | Online DPP |
|-------------------------------------|---------------|------------|
| Completed enrollment | 51 | 68 |
| Completed 1-3 sessions/modules | 5 (10%) | 10 (15%) |
| Completed 4-8 sessions/modules | 4 (8%) | 13 (19%) |
| Completed ≥ 9 sessions/modules | 13 (25%) | 38 (56%) |

Preliminary Qualitative Data

- Phone interviews using a semi-structured questionnaire
- 18 baseline interviews in Fall 2016
 - 10 DPP participants (n=6 in-person, n=4 online)
 - 2 DPP coaches
 - 6 Women's Health Providers
- 20 follow-up interviews in Spring 2017
 - 13 DPP participants (n=7 in-person, n=6 online)
 - 2 DPP coaches
 - 5 Women's Health Providers

Preliminary Qualitative Themes

- Prediabetes awareness lacking
 - Scared, shocked \leftrightarrow not surprised/shocked
- Gender-specific groups are important
- Choice matters
- DPP content well received regardless of modality
 - In-person: peer support, friendship and group “camaraderie”
 - Online: increased flexibility/convenience, accountability, “share stories”

Lessons Learned

- Work collaboratively *with* primary care but don't create work for primary care
 - Keep primary providers in the loop
 - Multifaceted and Veteran-led
- Decrease barriers for participants
 - Choice and gender-specific care
- Incorporate peers who can “talk the talk and walk the walk”

WEIGHT LOSS AMONG WOMEN AND MEN IN THE ASPIRE-VA BEHAVIORAL WEIGHT LOSS INTERVENTION TRIAL

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Cyberseminar

Update in Research on Cardiovascular Health in Women Veterans: Identifying and Managing Risk Factors

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Obesity is highly prevalent among Veterans

- Among Veterans who receive health care from VHA
 - 78% are overweight or obese
 - 41% are obese

Obesity treatment for women veterans warrants special attention

- Women will be >14% of the VHA population by 2033.
- Access to weight management programming in VHA is one of the top five health service priorities among women

Frayne SM, Phibbs CS, Saechao F, et al. Demographics, utilization, costs of care, and health profile. Washington, D.C.; 2014

Yano EM, Hayes P, Wright S, et al. Integration of women veterans into VA quality improvement research efforts: what researchers need to know. J Gen Intern Med 2010;25 Suppl 1:56-61.

Das SR, Kinsinger LS, Yancy WS, Jr., et al. Obesity prevalence among veterans at Veterans Affairs medical facilities. Am J Prev Med 2005;28:291-4. Kimerling R, Bastian LA, Bean-Mayberry BA, et al. Patient-centered mental health care for female veterans. Psychiatr Serv 2015;66:155-62.

Small Changes

- Combining elements of traditional behavioral therapy and non-dieting treatment approaches
- Goals are:
 - Small, manageable, and self-selected
 - One at a time – more is not better
 - Relative to baseline – NO GOLD STANDARDS
- Focus on behaviors and outcomes will come

ASPIRE-VA

- Lifestyle coaching
 - 28 sessions in 12 months
 - Non-clinical post-undergraduate lifestyle coaches (GS 5-7)
- Pedometer to track walking (physical activity)
- Logbooks to track dietary intake
- 3-Arms:
 - ASPIRE-VA In Person - Group (Mixed sex groups)
 - ASPIRE-VA Phone (Individual Phone)
 - MOVE! Weight Management Program (MOVE!: Usual care mixed sex groups)
- Two Midwestern VA medical centers
- Veterans referred to MOVE!

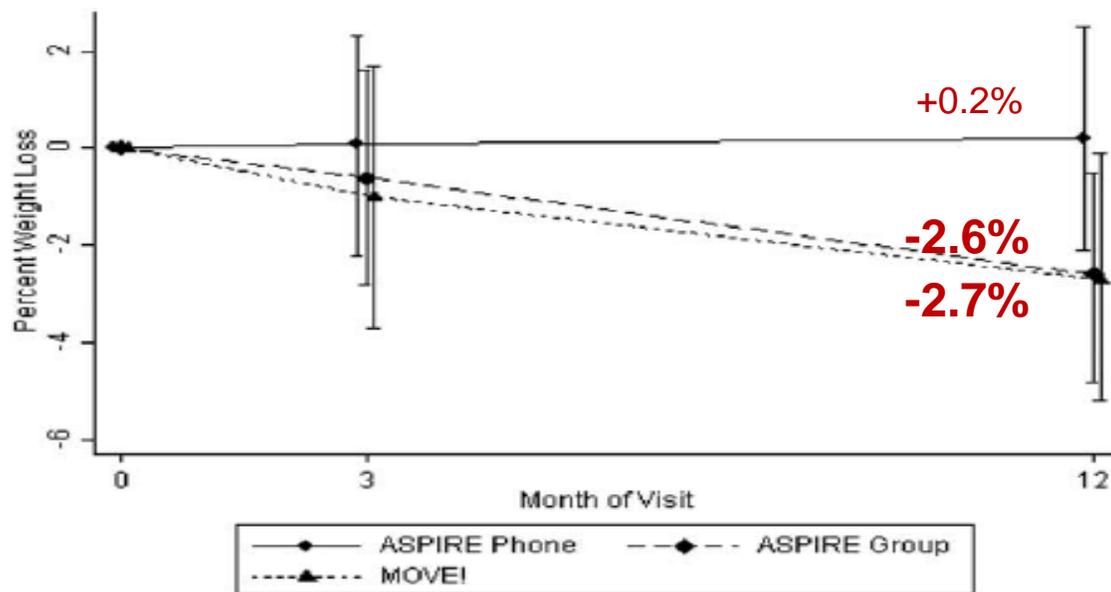
Demographics

TABLE 1 Demographic and clinical characteristics at baseline in the ASPIRE-VA study

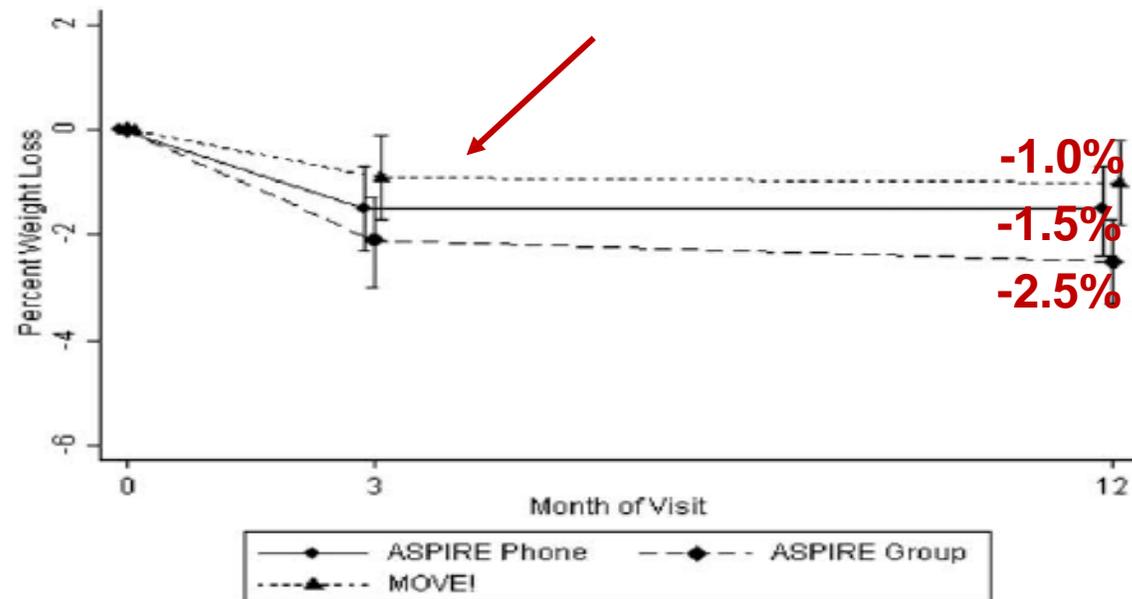
| | Women | Men | Total | <i>P</i> |
|---------------------------------------------------|-------------|--------------|--------------|----------|
| <i>N</i> | 72 | 409 | 481 | |
| Baseline weight (kg, SD) | 99.3 (19.8) | 115.4 (22.2) | 113.0 (22.6) | <0.001 |
| Age (years, SD) | 46.5 (9.5) | 56.5 (9.3) | 55.0 (10.0) | <0.001 |
| Race (<i>n</i> , %) | | | | 0.694 |
| Black | 33 (45.8) | 163 (39.9) | 196 (40.7) | |
| Other | 1 (1.4) | 8 (2.0) | 9 (1.9) | |
| White | 38 (52.8) | 238 (58.2) | 276 (57.4) | |
| Education (<i>n</i> , %) | | | | <0.001 |
| ≤High school graduate | 7 (9.9) | 101 (25.3) | 108 (23.0) | |
| Some college | 32 (45.1) | 222 (55.6) | 254 (54.0) | |
| College graduate | 32 (45.1) | 76 (19.0) | 108 (23.0) | |
| Arm (<i>n</i> , %) | | | | 0.59 |
| ASPIRE-Phone | 26 (36.1) | 136 (33.3) | 162 (33.7) | |
| ASPIRE-Group | 26 (36.1) | 134 (32.8) | 160 (33.3) | |
| MOVE! | 20 (27.8) | 139 (34.0) | 159 (33.0) | |
| Charlson index (<i>n</i> , SD) | 0.5 (1.2) | 1.2 (1.5) | 1.1 (1.5) | 0.001 |
| Income <\$20 K (<i>n</i> , %) | 27 (38.0) | 169 (44.2) | 196 (43.3) | 0.33 |
| Substance use disorder (<i>n</i> , %) | 7 (9.7) | 75 (18.3) | 82 (17.0) | 0.07 |
| Post-traumatic stress disorder (<i>n</i> , %) | 15 (20.8) | 61 (14.9) | 75 (15.8) | 0.20 |
| Bipolar disorder or schizophrenia (<i>n</i> , %) | 7 (9.7) | 24 (5.9) | 31 (6.4) | 0.22 |
| Depression (<i>n</i> , %) | 33 (45.8) | 123 (30.1) | 156 (32.4) | 0.008 |
| Other serious mental illness (<i>n</i> , %) | 1 (1.5) | 6 (1.4) | 7 (1.5) | 0.96 |

% Weight loss by study arm from baseline to 12 months

- Women Veterans



- Men Veterans



Conclusions

- Poor short-term (3-month) weight loss among women in all study arms
 - But consistent trajectory led to significant loss at 12 months
- Women in ASPIRE-Phone did not lose weight
 - Despite similar levels of engagement and satisfaction in both ASPIRE arms
- Sex-specific weight loss programs may not be more effective for women Veterans
- Additional research is needed

Limitations

- Small numbers of women in each program
- Secondary analyses

DISCUSSION

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THANK YOU

Questions/comments?

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