

WOMEN VETERANS IN THE WOMEN'S HEALTH INITIATIVE



Gayle E. Reiber, MPH, PhD, Research Career Scientist, VA Puget Sound Health Care System and SLC Health Care System Departments of Health Services and Epidemiology, University of Washington

Andrea Z. LaCroix, PhD, MPH, Senior Investigator, Women's Health Initiative Coordinating Center, Division of Epidemiology, Department of Family Medicine and Public Health, University of California San Diego

Julie Weitlauf, PhD, VA Palo Alto Health Care System, Sierra Pacific MIRECC and Center for Innovation to Implementation, Stanford University, Department of Psychiatry and Behavioral Sciences

Lori Bastian, MD, MPH, VA Connecticut Health Care System, West Haven, and Department of Internal Medicine, Yale University

Poll Question

What is your primary role?

- a. VA Clinical Care
- b. VA Research
- c. VA Leadership and Administration
- d. Non VA Clinical Care
- e. Other

Women Veterans in the Women's Health Initiative

Today's Order

- Overview
- Healthy Aging
- Mortality
- Menopause Related
- Diseases and Conditions



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https://gerontologist.oxfordjournals.org/content/56/Suppl_1.toc

<http://gerontologist.oxfordjournals.org/content/56/1/115.full.pdf+html>

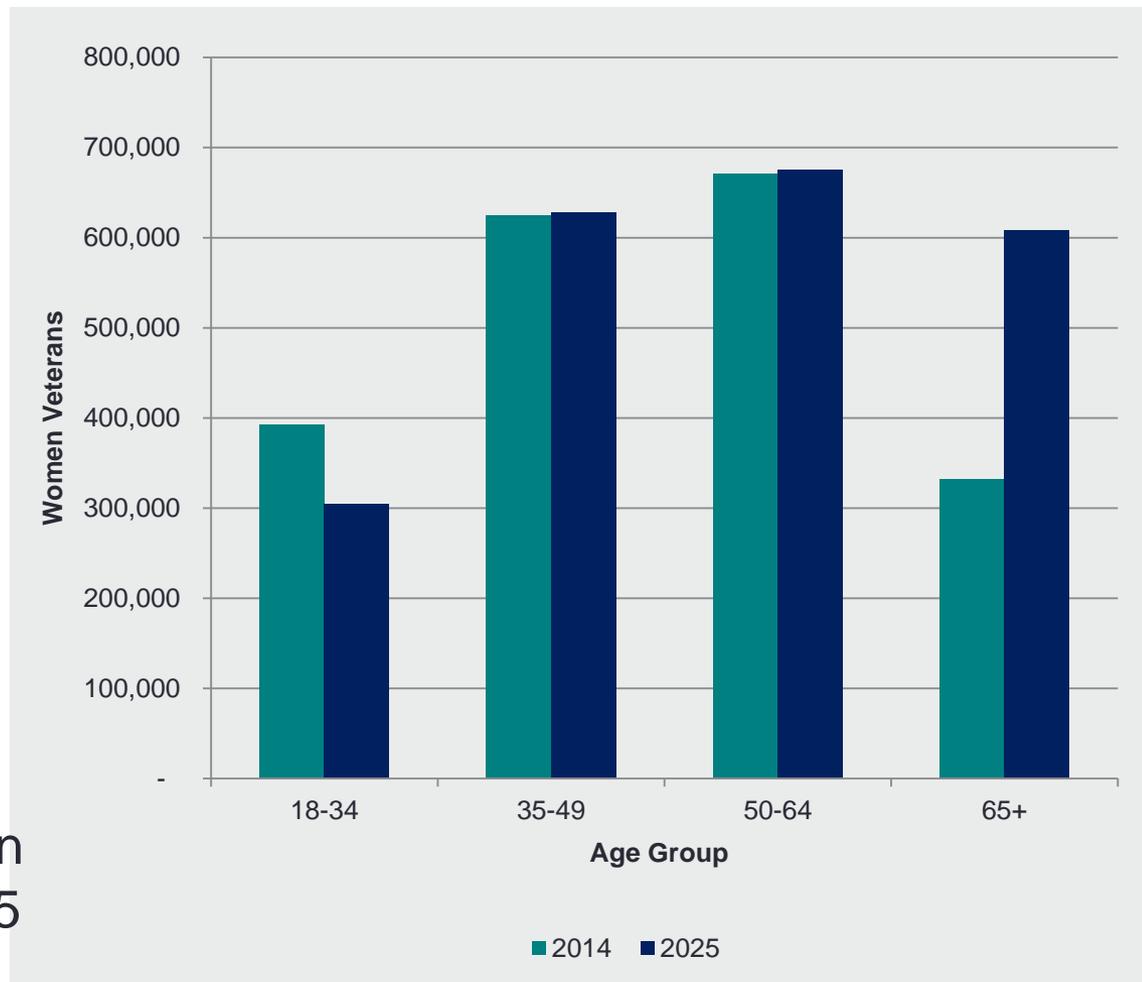
What Motivated This Research in Older Women Veterans?

Unique opportunity to:

Examine positive and negative associations of military exposure

Address health behaviors
And increased risk for disease in later life between women Veterans and non-Veterans

Begin clinical and research preparation for the projected 83% increase in older women Veterans between 2014-2025



Poll Question

Prior to today's Cyber Seminar had you heard about the Women's Health Initiative?

- a. No, today is the first time I've heard about the Initiative
- b. Yes, I am familiar with it but do not know the specifics
- c. Yes, I am familiar with it and have been looking forward to learning about results in women Veterans and non-Veterans
- d. Yes, I was involved with the research

Women's Health Initiative (WHI)



Using the Women's Health Initiative to Answer Key Questions in Older Women

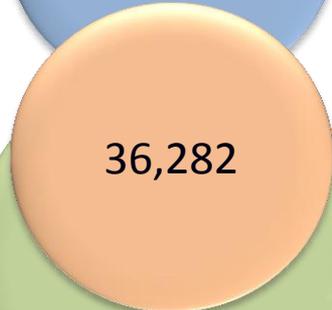
- Goal: Answer major questions about postmenopausal women's health (cancers, heart disease, osteoporosis-related bone fractures)
- Vast scientific undertaking
 - 161,808 participants from 40 U.S. centers followed up to 12 years in main study (1993-2005)
 - 115,403 participants enrolled in WHI Extension Study 2005-2010
 - 93,500 participants enrolled in WHI Extension Study 2010-2015

WHI Components and Primary Outcomes

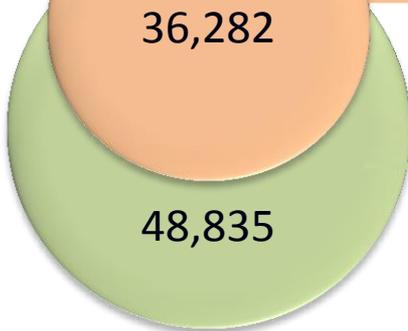
3 Controlled Trials



Hormone Therapy Trials:
Coronary Heart Disease and Fractures
Adverse effect for Breast Cancer?
(16,608 E+P; 10,739 E-Along)

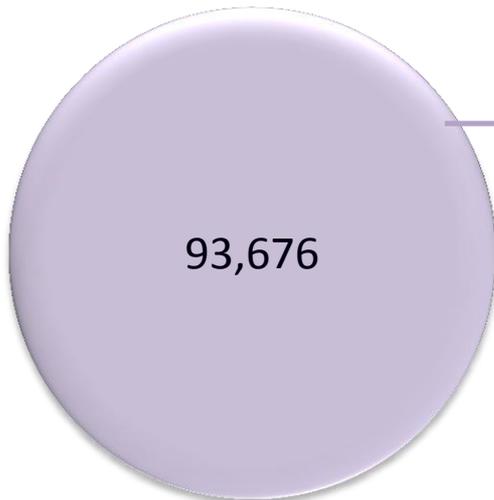


Calcium/Vitamin D Trial:
Fractures and Colorectal Cancer



Dietary Modification Trial:
Breast and Colorectal Cancers and Coronary
Heart Disease

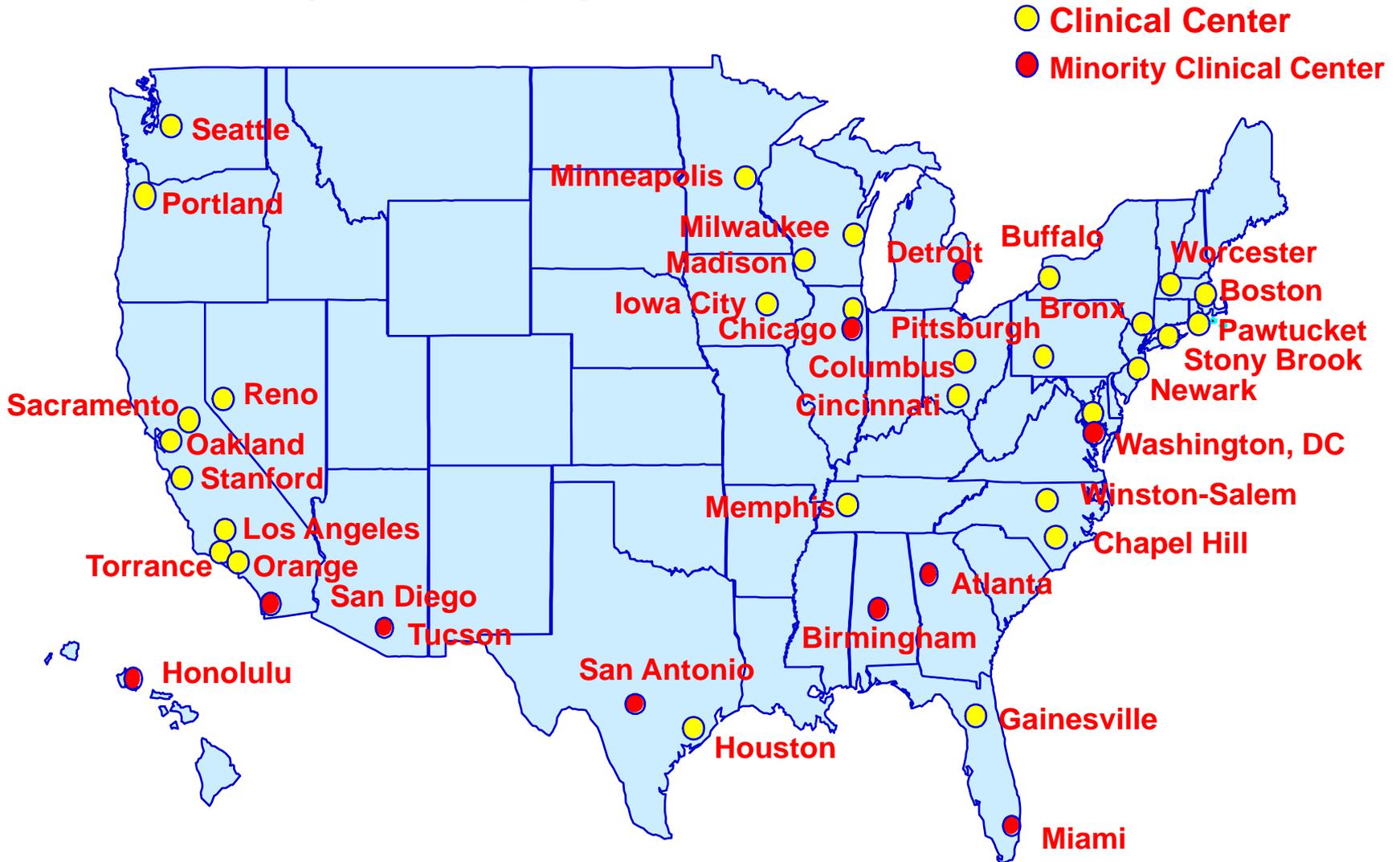
1 Observational Study



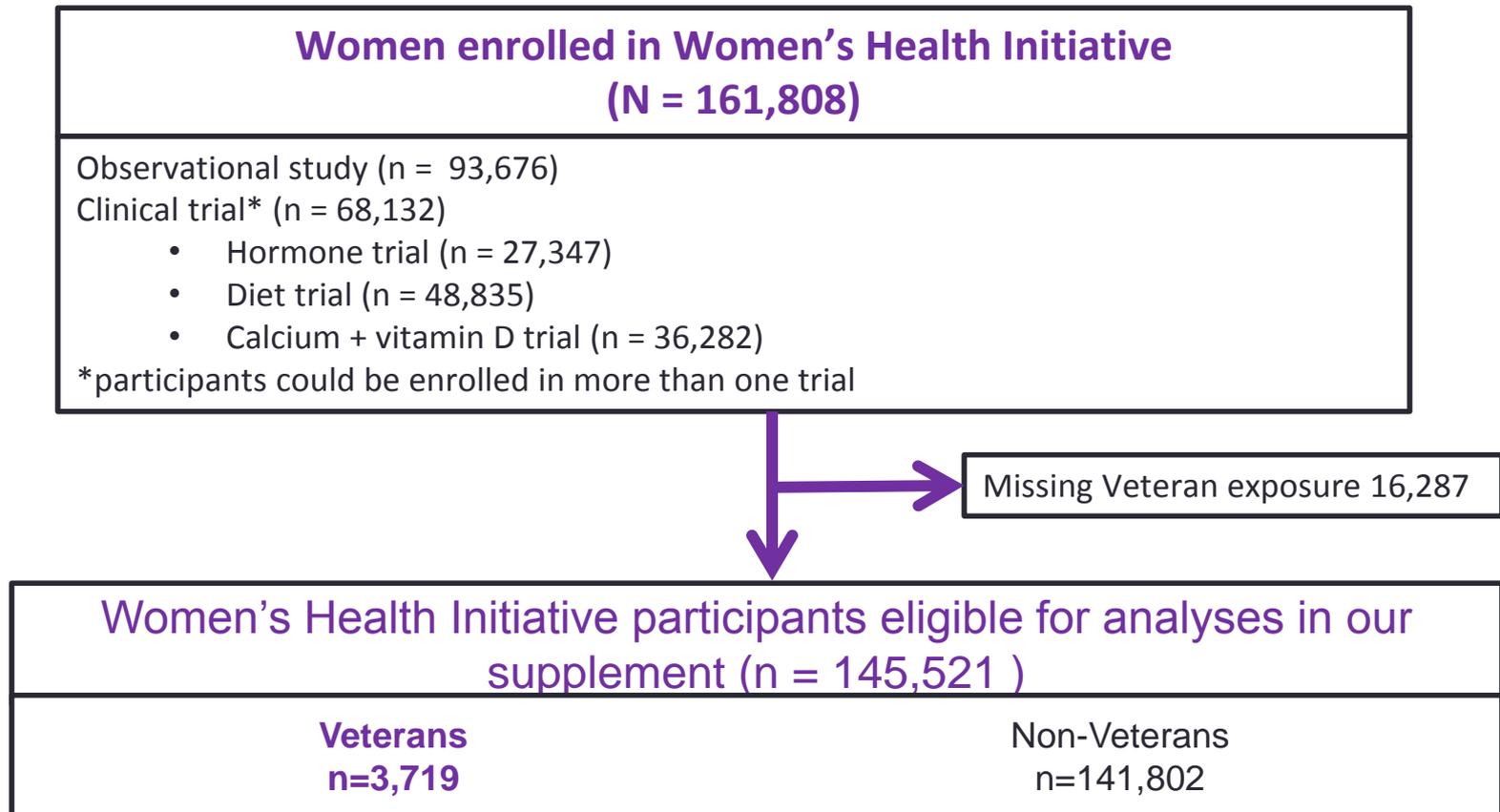
Observational Study

161,808 women total

WHI Clinical Centers



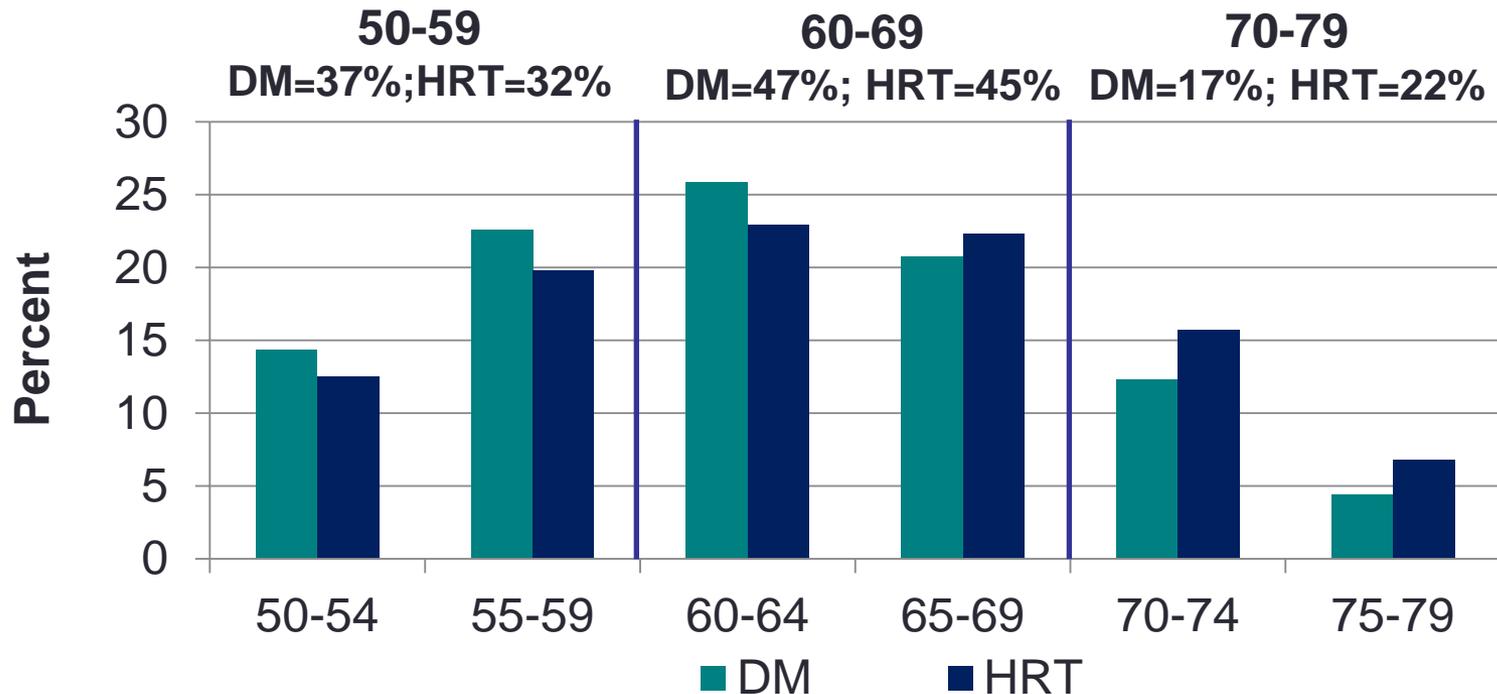
Women Veterans in the WHI



WHI CT: Baseline Age Distribution

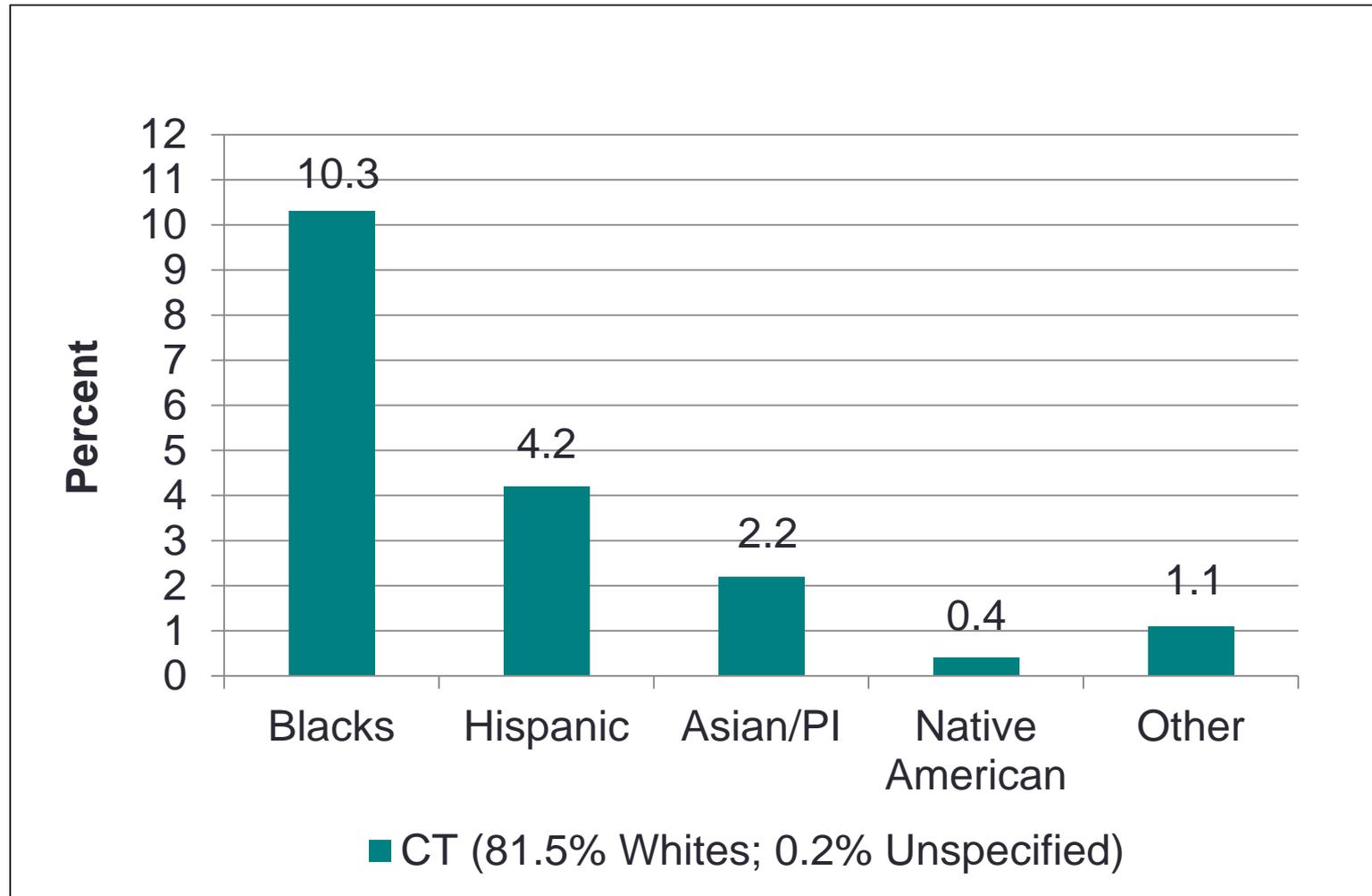
Mean \pm S.D.: DM = 62.3 \pm 6.9; HRT = 63.4 \pm 7.2

Goal: 50-54=10%; 55-59=20%; 60-69=45%; 70-79=25%

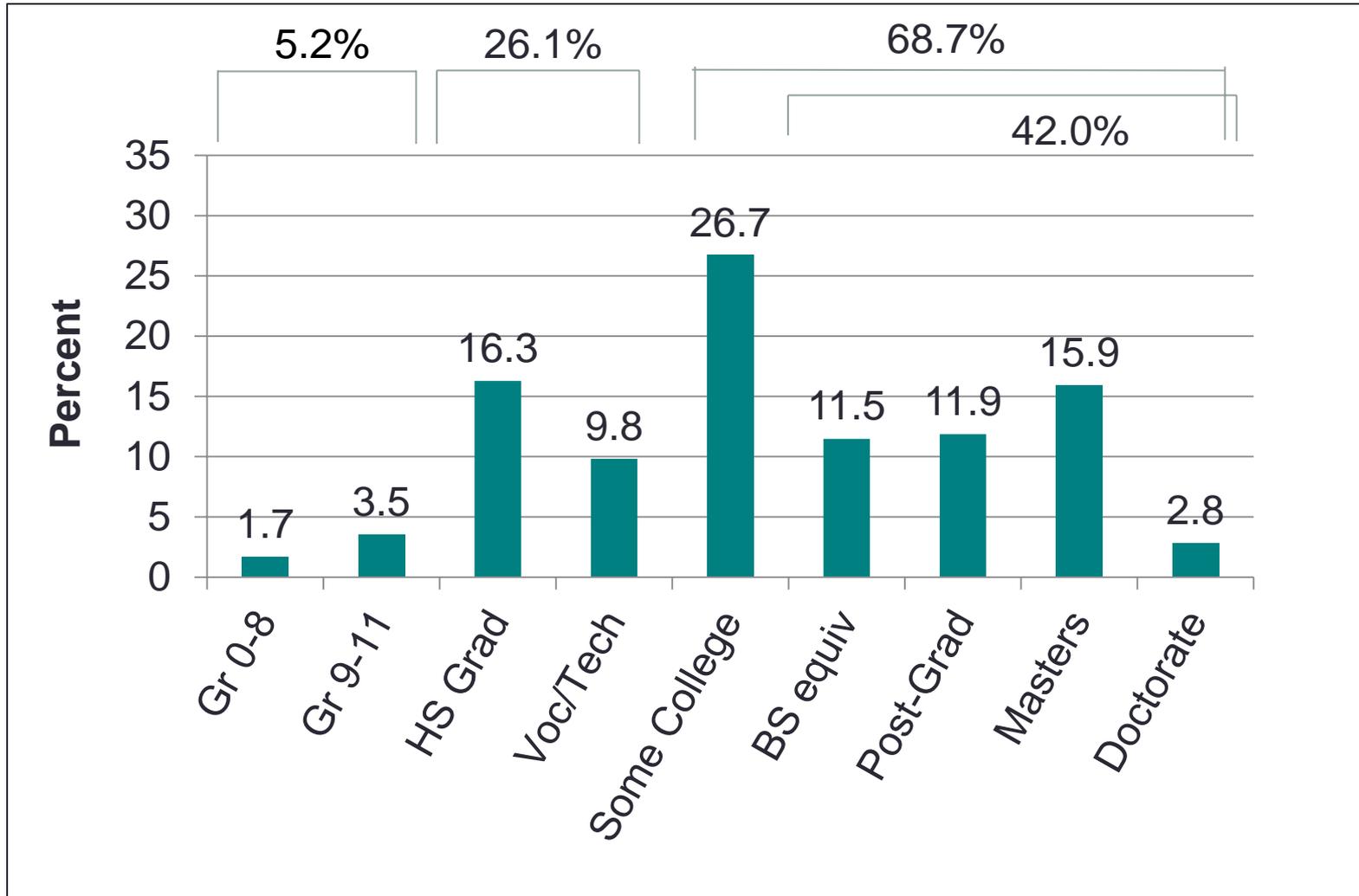


WHI CT (DM+HRT): Minority Distribution

Total CT = 68,133 Minorities = 12,462 (18.3%)



WHI OS: Education Level



Who are the Women Veterans in the WHI?



- 3,719 women Veterans in WHI
~ 3% of total WHI Recruits
- Health similar to non-Veterans
- Demographically distinct from non-Veterans—
 - Older
 - Highly Educated
 - Disproportionately Caucasian
 - Less Likely to be Married



Women Veterans in the WHI: Military Service Roles and Military Generation

- Majority (50%) are age consistent with eligibility for military service during WWII.
- About 20% age consistent with eligibility for service during the Korean war, 30% age consistent with eligibility for military service during the Vietnam War.
- Served in All Military Branches
- Diverse roles



Healthy Aging Research Findings

- LaCroix and colleagues found that women Veterans aged 80 and older reported significantly lower perceived health, physical function, life satisfaction, social support, quality of life, and purpose in life compared with non-Veterans. Also, among WHI participants who were aged 80 and older, women with prior military service were more likely to reside in a place with special services for the elderly.
- Washington and colleagues compared longitudinal trajectories of physical activity and sedentary behavior between Veteran and non-Veteran women. Although Veterans had higher baseline physical activity than non-Veterans, they had greater declines in physical activity over time.
- Padula and colleagues found Veteran status was associated with higher prevalence of protective factors that may have helped preserve cognitive functioning initially. However, findings ultimately revealed more pronounced cognitive decline among women Veterans.

Mortality Findings

- Washington and colleagues found Veterans compared to non-Veterans displayed significantly higher all-cause mortality rate ratios in the Pre-Vietnam, but not in the Vietnam/after generation.
- Simpson and colleagues identified that for alcohol consumption, women Veterans relative to non-Veterans were less likely to be lifelong abstainers and more likely to be former or moderate drinkers. Former drinkers experienced higher mortality than lifelong abstainers and moderate drinkers; heavy drinkers had higher mortality than moderate drinkers.
- Lehavot and colleagues found a 20% heightened risk of all-cause mortality among sexual minority women relative to heterosexual women Veterans. Sexual minority women were at greater risk of death from any cancer, and this relationship was stronger among Veterans than non-Veterans.

Menopause Related Findings

- Katon and colleagues identified the presence of vasomotor symptoms was associated with decreased health-related quality of life, particularly in Veterans whose baseline depression and obesity amplified this association.
- Rissling and colleagues identified greater risk in postmenopausal women Veterans relative to non-Veterans for insomnia and sleep disturbed breathing.
- Callegari and colleagues identified postmenopausal women Veterans were more likely than non-Veterans to undergo prior hysterectomy with or without Bilateral Salpingo-Oophorectomy, and early hysterectomy before age 40.

Disease and Condition Findings

- Bastian and colleagues found Veterans compared to non-veterans had higher rates of both tobacco use and exposure to passive smoking and higher risk for lung cancer compared with non-Veterans as a result of this exposure.
- Gray and colleagues examined the impact of chronic conditions on physical function among Veterans and non-Veteran women with diabetes. Among women with diabetes, having any additional chronic condition accelerated the decline in physical function – an effect that was even more pronounced among Veterans.
- LaFleur and colleagues found that the age-adjusted rate of hip fracture was significantly higher for Veterans compared with non-Veterans. After adjustment for fracture risk factors, the hazard ratio of hip fracture was about 20% higher for Veterans relative to non-Veterans.

Pain Findings

- Patel and colleagues identified approximately one in six women reported moderate-to-extreme pain interference. Women with moderate-to-extreme pain interference compared to women with less interference reported substantially worse physical function and greater symptoms of depression, fatigue, and insomnia

Clinical Implications

- Both VA and non-VA clinicians need to be aware that older women Veterans have unique risk factors to address. Thus clinicians in non-VA settings should elicit women's military service status when taking a history
- Women Veterans would benefit from targeted programs promoting physical activity, weight management, social connections, smoking cessation (as needed) and treatment for depressive symptoms. Group activities for women Veterans may be helpful offering both structure and support

Clinical Implications

- Screening is indicated for specific conditions e.g. alcoholism, osteoporosis, insomnia and sleep disordered breathing and for prior smokers, lung cancer screening
- Sexual minority women (regardless of VA status) are at higher mortality risk and may benefit from additional health promotion and tighter cardiovascular disease risk management
- Anticipatory planning is indicated for the large cohort of aging women Veterans from Korean and Vietnam Wars who will be requiring long term care at levels not previously seen in VA

Research Needs

- Identify predictors of positive physical activity trajectories and physical activity maintenance
- Design more sensitive measures of cognitive decline to more fully explain the relationship of risk and resilience
- Include robust and repeated measures of sleep disturbance in future studies
- Conduct research on trends in the indications for and route of hysterectomy in Veteran VA users. Assess CVD and dementia in women undergoing hysterectomy before age 40

Research Needs

- Programs may be needed to improve screening and treatment of osteoporosis and decrease higher rates of falls and functional decline in older women Veterans to prevent hip fracture.
- Research is needed to identify trajectories and time to loss of activities of daily living, and placement in residential facilities comparing women Veterans and non-Veterans
- More geriatrics and palliative care researchers are needed in VA to focus on gender differences and older women Veterans' needs



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The Women
Veterans
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Investigators:

Gayle.Reiber@va.gov

Alacroix@ucsd.edu

Lori.Bastian@va.gov

Julie.Weitlauf@va.gov

Analysts:

Kristen Gray, PhD

Eileen Sun-Rillamas, PhD

Administrative Support:

Erica Ma

Questions?

