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U.S. Department
of Veterans Affairs

Focus on Health Equity and Action:

New Vietnam Veteran Studies on Health and Mortality

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Thursday October 26, 2017 @ 3PM ET



FHEA 10.26.2017



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SESSION OUTLINE

- **Introduction & Background**
 - **Sec VA Priorities & VA Health Equity Action Plan**
 - **Military Eras/Period of Service & Health Disparities**
 - **NCVAS Data - Military Eras**
 - **Vietnam Veterans Why?**

- **Vietnam War - History & Research Background**
- **Vietnam Veterans Health and Mortality**
 - **Study 1 - VE-HEROeS**
 - **Study 2 - Vietnam Veterans Mortality Study**

- **Discussion with Q & A**





DISCLOSURE

- The presentation in this session are those of the authors who are responsible for its contents and do not necessarily represent the views of the Department of Veterans Affairs or the United States Government. Therefore, no statement in this document should be construed as an official position of the Department of Veterans Affairs.
- The study results presented here are preliminary. They are not intended for any use or dissemination beyond this cyberseminar until the study team completes further analyses.

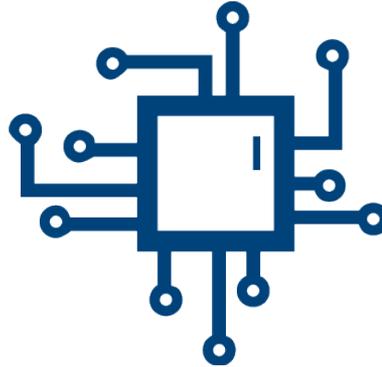




TOP 5 PRIORITIES – SEC VA Dr. David Shulkin



Greater Choice



Modernize Systems



Efficiency



Improve Timeliness



Suicide Prevention



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VA HEALTH EQUITY ACTION PLAN - HEAP

OHE along with key partners developed the HEAP which Aligns with Sec VA Priorities, My VA, the VHA Strategic Plan (see Objective 1E Quality & Equity), and other agency and national strategic goals. The HEAP focal areas are

- **Awareness:** Crucial strategic partnerships within and outside VA
- **Leadership:** Health equity impact assessed for all policies, executive decision memos, handbooks, procedures, directives, action plans and National Leadership Council decisions
- **Health System Life Experience:** Incorporate social determinants of health in personalized health plan
- **Cultural and Linguistic Competency:** Education & training on health equity, cultural competency to include unconscious bias, micro inequities, diversity & inclusion
- **Data, Research and Evaluation:** Develop common definitions and measures of disparities and inequities; Develop strategies for capturing data on race, ethnicity, language, and socioeconomic status and other variables needed to stratify the results for all quality measures and to address disparities; Incorporate health equity into Strategic Analytics for Improvement and Learning (SAIL)



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SEC VA PRIORITIES & HEALTH EQUITY

▪ **Greater Choice**

- Consider any disparate impact on vulnerable Veteran populations.
- Empower Veterans through transparency of information

▪ **Improve Timelines**

- Consider any disparate impact on vulnerable Veteran populations.

▪ **Suicide Prevention**

- Apply equity lens to 2016 suicide mortality report to inform culturally appropriate and tailored prevention strategies for vulnerable Veteran populations as appropriate. More details in the FHEA 07.17.2017 Archive

▪ **Accountability /Efficiency**

- Implement Commission on Care Recommendation #5 – Eliminate Health Disparities among Veterans: Make Health Equity a Strategic Priority by Implementing the HEAP.
- Data transparency by assessing any disparate impact and making data on vulnerable Veterans publicly available.
- Go beyond collecting and analyzing disparities to actually addressing them in order to diminish or eliminate the gaps

▪ **Modernization**

- Embed HEAP implementation into foundational services.
- Incorporate social determinants of health in the new EHR with connection to DoD & actionable data for vulnerable groups.
- Consider disparate impact of appeals on the vulnerable.
- Develop partnerships with community organizations to improve health equity.

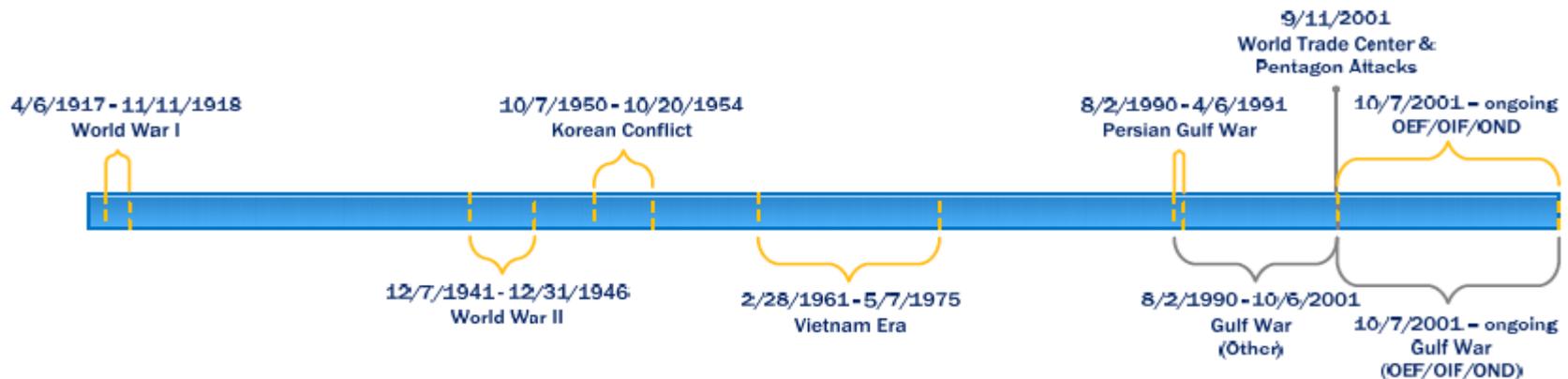


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MILITARY ERA /PERIOD OF SERVICE

Timeline of U.S. Period of Service Eras (1900-Present)*



* Not included: Spanish-American War (April 21, 1898 – July 4, 1902)

Key: OEF/OIF/OND – Operation Enduring Freedom / Operation Iraqi Freedom / Operation New Dawn

Notes: U.S. war eras are portrayed in yellow brackets. VHA Office of Health Equity (OHE) distinguishes two Gulf War periods (portrayed in gray brackets): “Gulf War (Other)” is the period from the start of the Persian Gulf War to the start of Operation Enduring Freedom (August 2, 1990 – October 6, 2001), while “Gulf War (OEF/OIF/OND)” includes the OEF/OIF/OND conflict beginning on October 7, 2001 and still ongoing as of the date this document was prepared 1/10/2015 and as of latest update (02/10/2017).

Sources: 1. U.S. Congressional Research Service. U.S. Periods of War and Dates of Current Conflicts, by Barbara Salazar Torreon. CRS Report RS21405. Washington, DC: Office of Congressional Information and Publishing, February 27, 2015.; 2. Office of the Federal Register. Code of Federal Regulations. Title 38: Pensions, Bonuses, and Veterans’ Relief. Chapter 1. Part 3. Subpart A. §3.2. Retrieved from: http://www.ecfr.gov/cgi-bin/text-idx?SID=a40bd0cbbfad4a8f5157e23b887010f3&node=pt38.1.3&rgn=div5#se38.1.3_12

Prepared under OHE-Women’s Health Evaluation Initiative MOU and last updated on 02/10/2017



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MILITARY ERA /PERIODS OF SERVICE - NOTES

Timeline of U.S. Period of Service Eras (1900-Present)*



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VETERANS AS UNIQUE POPULATION

- <2% of US Population in military service
- ~9 million of the estimated 22 million Veterans alive use VA
- Military service is unique
- **Experiences during military service are unique**
- **Challenges & exposures may vary by era/period of service**
- Some health challenges may be more prevalent and/or related to military era/period of service
- Veterans & non-Veterans may be members of a vulnerable group
- Military service & era add vulnerability for health & health care disparities
- Combination may increase likelihood of health disparities/inequities
- **Intersection of vulnerability > +/-**



VULNERABLE POPULATIONS

- Racial or Ethnic Group
- Gender
- Age
- Geographic Location
- Religion
- Socio-Economic Status
- Sexual Orientation
- Military Era/Period of Service
- Disability – Cognitive, Sensory, Physical
- Mental Health
- Other characteristics historically linked to discrimination or exclusion



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Flashback to 03.24.2016 FHEA



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Health Profile Period of Service Era



Domain Frequencies by Peace-Time/Other Period of Service Era among Veteran VHA Patients, FY13

	% Post-Vietnam/ Pre-Gulf War	% Post-Korean/ Pre-Vietnam	% Post-World War II	% Pre-World War II
Count	606,399	302,111	18,042	982
Infectious Disease	26.8	17.6	16.0	13.8
Endocrine/Metabolic/Nutritional	61.9	77.5	70.9	53.8
Cardiovascular	55.3	78.8	77.3	67.8
Respiratory	28.8	28.8	26.4	18.4
Gastrointestinal	37.9	36.3	30.9	25.6
Urinary	13.0	21.9	24.3	23.2
Reproductive Health	19.4	33.1	31.9	28.6
Breast	1.4	0.4	0.3	0.1
Cancer	5.2	17.0	17.0	12.9
Hematologic/Immunologic	8.8	13.5	15.5	13.5
Musculoskeletal	57.7	42.9	38.3	35.6
Neurologic	23.4	24.0	28.4	31.6
Mental Health/Substance Use Disorder	43.8	15.8	12.4	10.4
Sense Organ	37.3	49.7	52.5	54.9
Dental	10.0	2.6	2.0	1.8
Dermatologic	21.8	22.8	19.9	15.8
Other	57.9	38.3	32.2	29.9

Denominator: Veteran FY2013 VHA Patients (Courtesy of Women's Health Evaluation Initiative [WHEI])



Domain Frequencies by War-Time Era among Veteran VHA Patients, FY13

	% Gulf War (OEF/OIF/OND)	% Gulf War (Other)	% Vietnam Era	% Korean War	% World War II
Count	599,674	653,109	2,325,333	522,536	379,758
Infectious Disease	16.1	21.2	23.8	18.0	18.1
Endocrine/Metabolic/Nutritional	32.0	53.8	74.5	75.0	66.4
Cardiovascular	20.8	42.1	72.3	79.6	76.3
Respiratory	19.4	26.4	30.8	28.1	25.0
Gastrointestinal	22.2	31.4	40.4	34.4	31.4
Urinary	5.3	10.3	18.3	25.0	27.3
Reproductive Health	12.8	19.1	27.5	33.7	31.8
Breast	0.8	1.6	0.5	0.4	0.4
Cancer	1.1	3.5	12.5	18.2	16.9
Hematologic/Immunologic	2.9	6.5	11.6	16.0	17.9
Musculoskeletal	52.9	58.1	51.5	42.0	39.8
Neurologic	22.6	23.2	24.1	28.7	32.7
Mental Health/Substance Use Disorder	48.9	41.1	35.4	14.9	13.7
Sense Organ	23.5	32.1	48.9	53.5	57.2
Dental	8.3	10.4	10.2	3.2	3.6
Dermatologic	14.8	19.0	25.6	22.6	21.7
Other	47.3	50.2	50.7	35.7	34.2

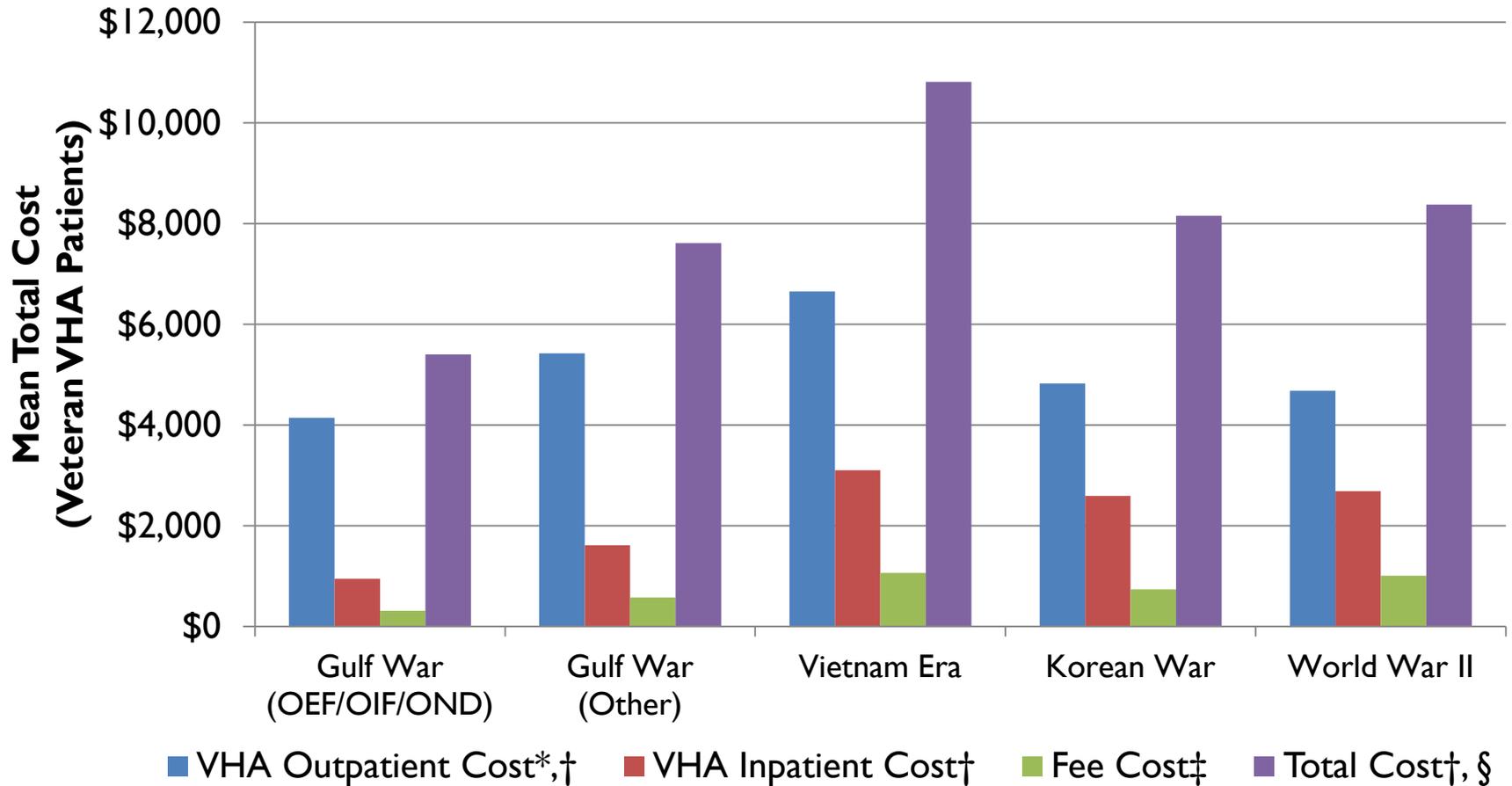
Key: OEF/OIF/OND – Operation Enduring Freedom / Operation Iraqi Freedom / Operation New Dawn
 Denominator: Veteran FY2013 VHA Patients (Courtesy of Women's Health Evaluation Initiative [WHEI])



Cost of Care Period of Service Era



Mean Total Costs by War-Time Era among Veteran VHA Patients, FY13

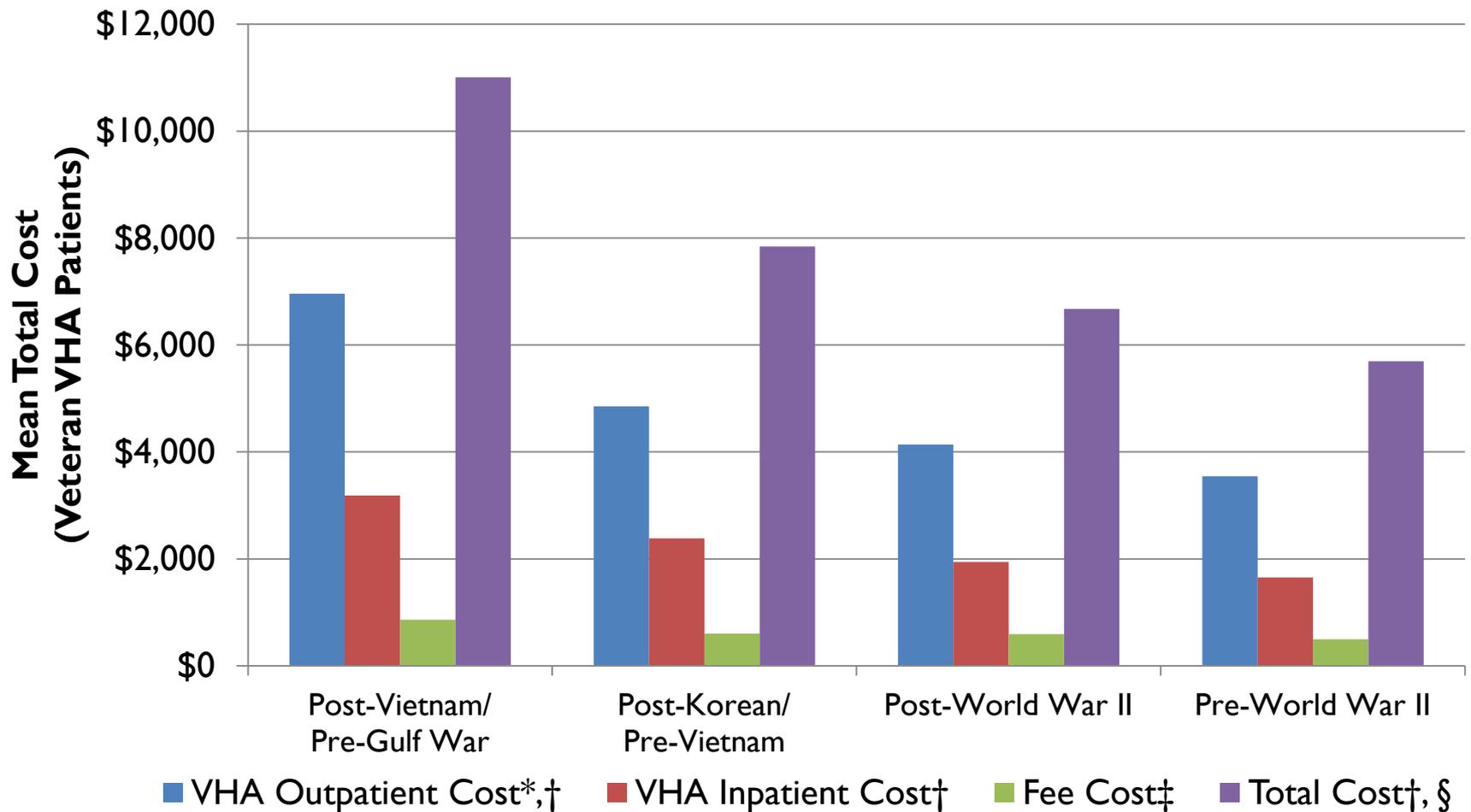


*Includes outpatient pharmacy †Outliers trimmed ‡Costs paid in FY13 §Total costs include outpatient, inpatient, and pharmacy

Key: OEF/OIF/OND – Operation Enduring Freedom / Operation Iraqi Freedom / Operation New Dawn
 Denominator: Veteran FY2013 VHA Patients (Courtesy of Women's Health Evaluation Initiative [WHEI])



Mean Total Costs by Peace-Time/Other Period of Service Era among Veteran VHA Patients, FY13



*Includes outpatient pharmacy †Outliers trimmed ‡Costs paid in FY13 §Total costs include outpatient, inpatient, and pharmacy

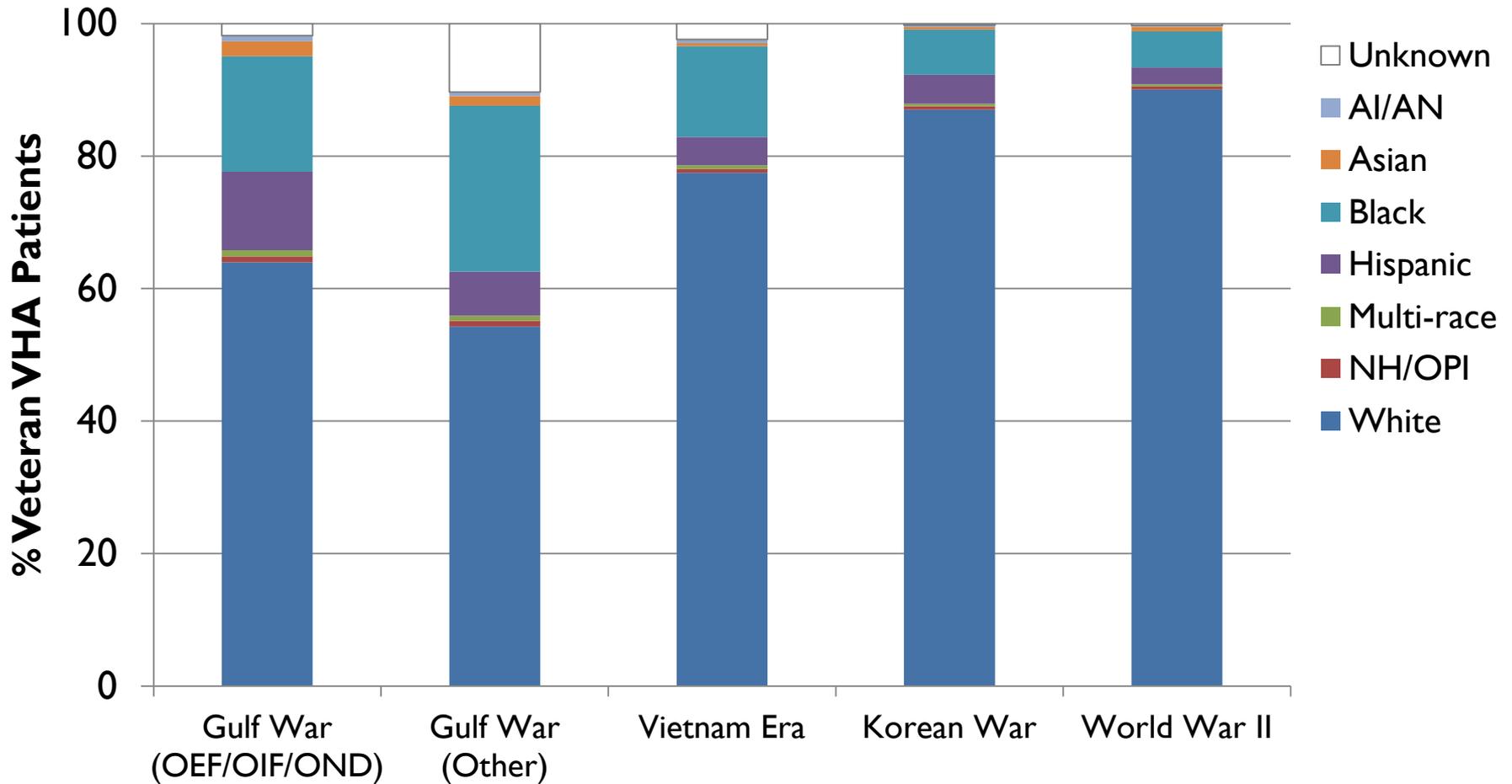
Denominator: Veteran FY2013 VHA Patients (Courtesy of Women's Health Evaluation Initiative [WHEI])



Sociodemographics Period of Service Era



Race/Ethnicity by War-Time Era among Veteran VHA Patients, FY13



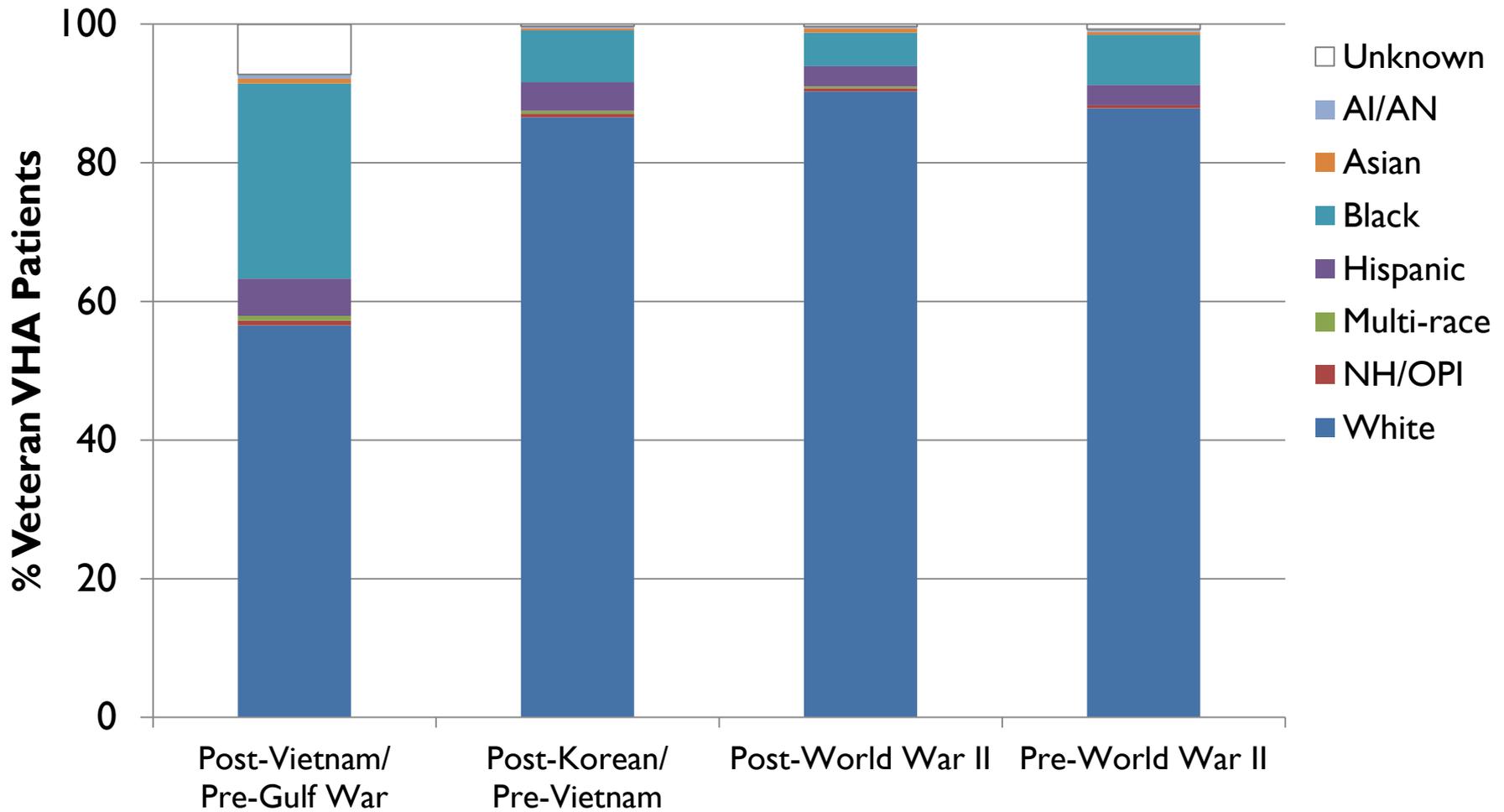
Key: AI/AN – American Indian/Alaska Native; Black – Black/African American; NH/OPI – Native Hawaiian/Other Pacific Islander; OEF/OIF/OND – Operation Enduring Freedom / Operation Iraqi Freedom / Operation New Dawn

Denominator: Veteran FY2013 VHA Patients (Courtesy of Women’s Health Evaluation Initiative [WHEI])

► Source: VHA Office of Health Equity (OHE)



Race/Ethnicity by Peace-Time/Other Period of Service Era among Veteran VHA Patients, FY13



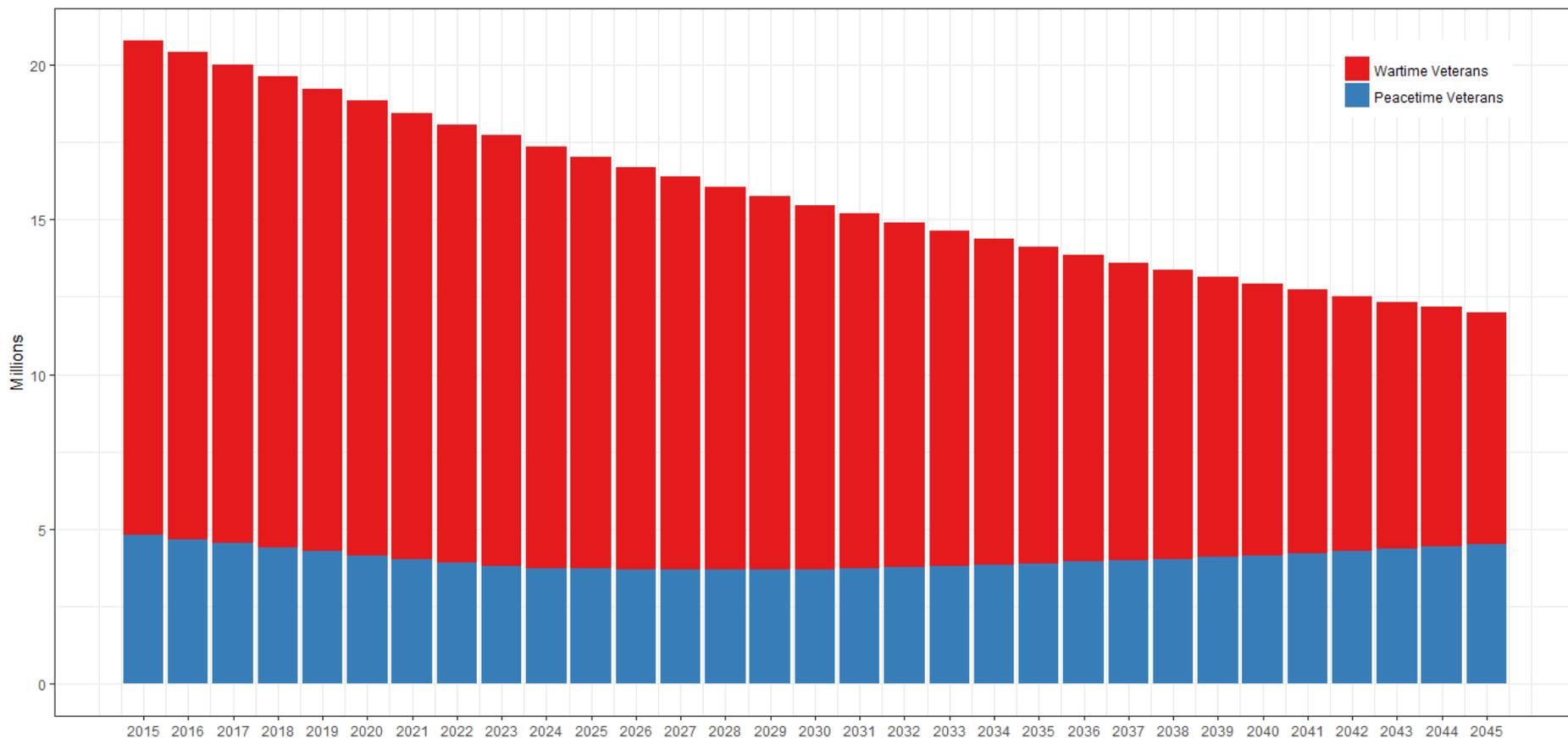
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Source: VHA Office of Health Equity (OHE)





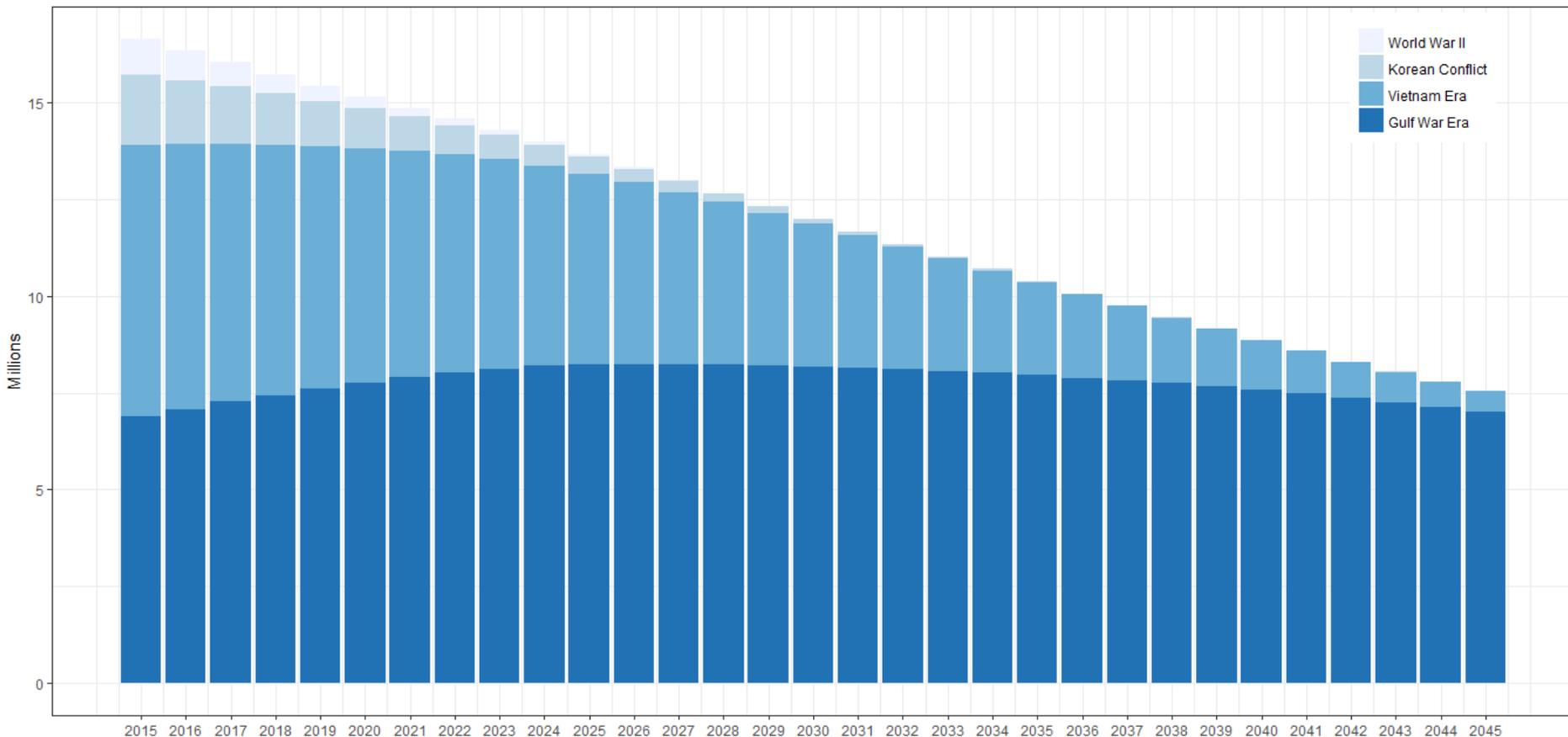
LIVING VETERANS, 2015-2045



Source: VetPop2016 - NCVAS



LIVING VETERANS BY PERIOD OF SERVICE, 2015-2045



Source: VetPop2016 - NCVAS



RELATED RESOURCES

- Veterans Health Administration Office of Health Equity. Timeline of U.S. Period of Service Eras. 2016.
https://www.va.gov/HEALTHEQUITY/docs/Period_of_Service_Timeline_OHE10212016.pdf
- Office of Health Equity Tools Page. <https://www.va.gov/HEALTHEQUITY/Tools.asp>
- MacLean, A, & Elder Jr, GH. (2007). Military service in the life course. *Annual Review of Sociology*, 33: 175-196.
- Sheehan, CM, Hummer, RA, Moore, BL, Huyser, KR, & Butler, JS. (2015). Duty, honor, country, disparity: Race/ethnic differences in health and disability among male Veterans. *Population Research and Policy Review*, 34(6), 785-804.
- Wilmoth, JM, & London, AS. (2016). Characteristics of Veterans and Nonveterans within 20th-Century Cohorts in the United States. *The Civilian Lives of US Veterans: Issues and Identities* [2 volumes], 11.



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Poll Question 1



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YOUR INPUT REQUIRED - POLL QUESTION 1

What question(s) would you like to see answered about health disparities experienced by Vietnam War theater Veterans as compared to their era (non-theater) military peers or civilians?



➤ Write your response in the *question box*



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BACKGROUND: US & THE VIETNAM WAR

- 1887-1954—France colonized Vietnam
- 1940-1945—Japan occupied Vietnam during WWII
- 1946-1954—Vietnam seeks independence: First Indochina War
- 1954—France defeated at Dien Bien Phu: Geneva Peace Accords→division at 17th parallel; France withdraws
- 1961—US fears communist expansion, deploys military advisors to train troops and stabilize South Vietnam; tactical herbicide use begins
- 1963—16,000 U.S. military advisors in country
- 1964—Gulf of Tonkin incident, US bombs North Vietnam
- 1965—Ground troop escalation; US ground military engages
- 1968—High US opposition to the war; North Vietnam launches Tet offensive
- 1971—Herbicide use ends
- 1973—‘Peace with honor’; US withdraws
- 1975—Saigon falls to North Vietnam
 - 3M US served
 - 58,220 US deaths
 - >300,000 US wounded
- Signature injuries: **PTSD** and health **effects of herbicides**



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SOLDIERS' EXPERIENCES OF VIETNAM WAR

- Military draft
- Rotation of individual soldiers in and out of theater
- Youth
- Guerilla warfare, unclear mission, lack of civilian support
- Drug use and addiction
- Racism
- Homecoming: disregard→hostility
- Poor treatment by VA
- Access to healthcare, research, benefits debated



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PAST LARGE STUDIES OF VIETNAM VETERANS

- CDC's Vietnam Experience Studies (1984-88)
- National Vietnam Veterans Readjustment Study (NVVRS)—ORD (1984-88)
- Various cohorts—Environmental Epidemiology and successors (c. 1990-present)
- Vietnam Twin Studies—ORD (c. 1990-present)
- National Vietnam Veterans Longitudinal Study (NVVLS)—ORD (2011-2013)





WHY STUDY VIETNAM VETERANS NOW?

- 56 years since the start of the Vietnam War
 - accumulation of health conditions
 - many questions
- At average age of 70, is the overall health of Vietnam War theater Veterans different from Veterans who did not serve in theater and from civilian members of the US public?
- Are rates, causes or patterns of mortality of Vietnam War theater Veterans different than non-theater 'era' Veterans?



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VE-HEROeS

Vietnam Era
Health Retrospective
Observational Study

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DEFINITION—VIETNAM VETERAN COHORT

- Served in North or South Vietnam, Cambodia, or Laos
 - February 29, 1961 - May 7, 1975
 - Army, Navy, Air Force, Marines
- Sample Frame from VA's USVETS
 - Database of all Veterans, all eras
 - 9.9M records in this definition of Vietnam era
- Survey questions identify
 - Who served in-county
 - Who served elsewhere



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DEFINITION—ERA VETERAN COHORT

- Served in U.S. military
 - February 28, 1961 - May 7, 1975
- Served other than in-country Vietnam, Cambodia, or Laos
 - Army, Navy, Air Force, Marines
- Sample Frame from VA's USVETS' 9.9M
 - Sample of 45,067 includes Vietnam and Era Veterans
- Survey questions identify locations of service



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DEFINITION—US VIETNAM ‘GENERATION’

- Never served in military
- Age-matched to Vietnam Veterans
- Identified from a 2-stage sample of 300,000 U.S. households



<http://www.cnn.com/2014/05/16/us/gallery/60-iconic-moments-from-the-1960s/>



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PRIMARY AIMS

- Measure current overall health, lifestyle characteristics, aging-related conditions among US Vietnam War theater Veterans. Compare to:
 - Vietnam non-theater 'era' Veterans
 - Members of the US population (age matched)
- Examine and compare overall health, lifestyle, and prevalence of key health conditions:
 - Conditions of concern (literature, Veterans, clinicians)
 - Presumptively service connected conditions
 - Hepatitis C
 - Neurologic conditions (dementia, Parkinson's disease, stroke, TBI)
- Validate some conditions by medical record review





EXPLORATORY AIMS

- **Determine feasibility of identifying a sample of Blue Water Navy Veterans**
 - describe their overall health, lifestyle characteristics, and aging-related conditions

- **Determine whether Vietnam Veterans believe their children and grandchildren were harmed by Vietnam military service**
 - ask about birth defects, childhood conditions
 - whether they would choose to be re-contacted for additional research





STUDY DESIGN

- A retrospective cohort study; survey
 - Exposures: military service in Vietnam, military service elsewhere, no military service
 - Outcomes: overall health and health conditions possibly associated with military service in Vietnam and elsewhere
- Mailed pen-and-paper survey of a random, scientifically constructed sample of Vietnam theater and era Veterans from
 - 9.9 M Vietnam War theater and Vietnam era Veterans
 - 300,000 US households (2-stage sample)
- Survey asks about past and current health and illnesses, lifestyle, exposures, functioning
 - Some conditions verified by medical records





STUDY DESIGN

Response rate goals

- Veterans 40% U.S. Public 60% (6,000 per group)

Survey questions informed by the questions of:

- Scientists with knowledge of past research on Vietnam Veterans
- Recommendations of the IOM/NASEM *Veterans and Agent Orange* series
- A Steering committee composed of:
 - Survey research experts
 - Vietnam Veterans (including Blue Water Navy)
 - Clinicians who provide care for Vietnam Veterans





SURVEY QUESTION DOMAINS

Domain	Veterans' Questions	US Public Questions
Military Service	Service, combat, exposures	confirm no service
General Health	Physical & mental	physical & mental
Physical Health	Clinician's diagnoses & whether attributed to military service	same, no attribution
Mental Health	Psychologic distress, PTSD, depression	same
Aging	Memory, cognition, limitations	same
Lifestyle	ETOH, tobacco, drug, health care access, gender identity, sexual preference	same
Health of offspring	9 categories of health conditions (attention disorders, learning disabilities, congenital anomalies, missing limbs, infections, childhood cancers, reproductive effects, etc) with attribution	same, no attribution



VE-HEROeS—RESPONSE RATES

Reached our goal of 6,000 completes – Veteran arms
Close to the goal for the US arm

Final Response Rates (AAPOR RR4 Formula)

Survey	Sample Size	Eligible Completes	Response Rate
US Screener	300,000	16,950	20%
US Main	6,885	4,530	67%
Veteran	44,611	18,866*	45%

*6,735 In-Country Vietnam Veterans & 12,131 Vietnam Era Veterans



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STATISTICS, WEIGHTING, DATA EDITING AND IMPUTATION

- The analysis population was weighted to match the participants' age and sex distributions, and to adjust for questionnaire non-response
- Multivariable logistic regression was used to obtain the adjusted odds ratios (OR), 95% confidence intervals (CI), and p-values, which account for the background differences between the comparison groups that could influence the health findings
- For the comparisons between the Vietnam veterans and non-veterans, adjustment was made for age (continuous), sex (male, female), and race (white, black, others, multi-race)
- For the comparisons between the Vietnam veterans and era veterans, adjustment was additionally made for military branch (Army, Marine Corps, Navy, Air Force, Coast Guard)
- Comprehensive data editing was performed to enhance the validity of the data
 - Removed inconsistencies among questionnaire responses
 - Removed highly unreasonable questionnaire responses
 - Made sure questionnaire skip patterns were properly followed
- Hot deck imputation was used to impute missing values for the health conditions and the health scales



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DEMOGRAPHICS—MILITARY SERVICE

Service Locations	Vietnam Veterans		Era Veterans	
	n	% (weighted*)	n	% (weighted*)
South Vietnam, North Vietnam, Cambodia, Laos	6735	100	0	0.0
Other Southeast Asia	1025	15.1	1179	11.2
Other (other Asia, Europe, US, other)	3048	44.2	11238	94.0

*** weights are adjusted for age and sex**

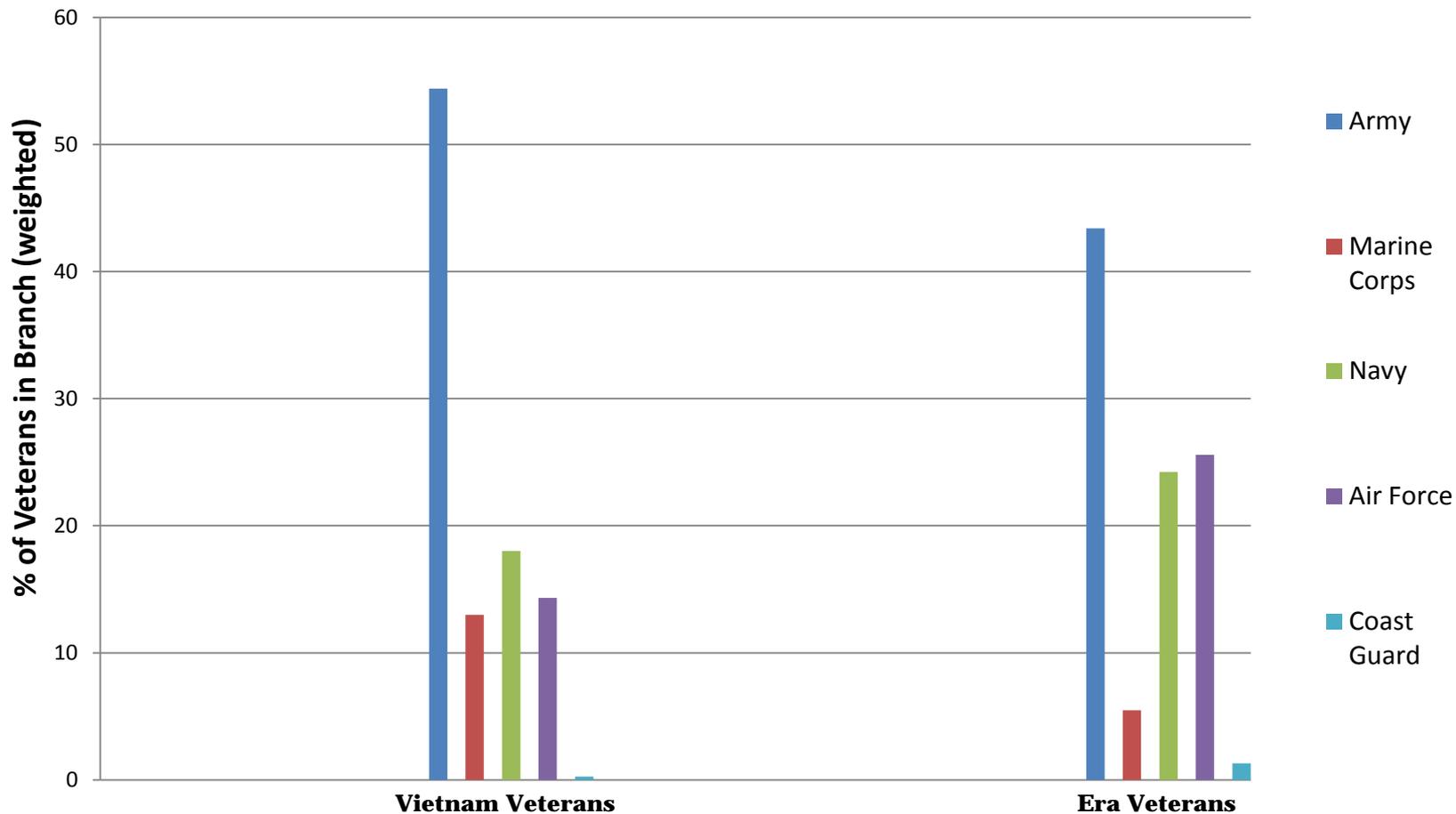


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DEMOGRAPHICS—MILITARY SERVICE

Vietnam vs Era Veterans by Military Branch



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DEMOGRAPHICS—AGE, SEX, RACE

	Vietnam Veterans			Era Veterans			Non-Veterans			p-value ¹	
	n	Unweighted %	Weighted % ²	n	Unweighted %	Weighted % ²	n	Unweighted %	Weighted % ²	Vietnam vs. era Veterans	Vietnam Veterans vs. non-Veterans
Age										<0.0001	<0.0001
58-65	450	6.7	8.3	3952	32.6	8.4	2442	53.9	8.4		
66-70	3767	55.9	58.7	4529	37.3	58.6	1028	22.7	58.6		
71-75	1720	25.5	23.7	2407	19.8	23.7	561	12.4	23.7		
76-80	467	6.9	4.4	943	7.8	4.4	314	6.9	4.4		
>80	331	4.9	4.9	300	2.5	4.9	185	4.1	4.9		
Sex										<0.0001	<0.0001
Male	6717	99.7	99.7	11683	96.3	99.7	4246	93.7	99.7		
Female	18	0.3	0.3	448	3.7	0.3	284	6.3	0.3		
Race										0.14	<0.0001
White (single race)	5810	87.7	87.5	10382	87.0	88.4	3952	88.8	88.4		
Black (single race)	488	7.4	7.2	983	8.2	7.1	242	5.4	6.0		
Others (single race)	149	2.3	2.4	241	2.0	2.0	175	3.9	4.5		
Multi-race	179	2.7	2.8	331	2.8	2.5	83	1.9	1.2		

¹p-values are unadjusted, with probabilities based on the chi-square statistic

²weights are adjusted for age and sex



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MEASURING HEALTH

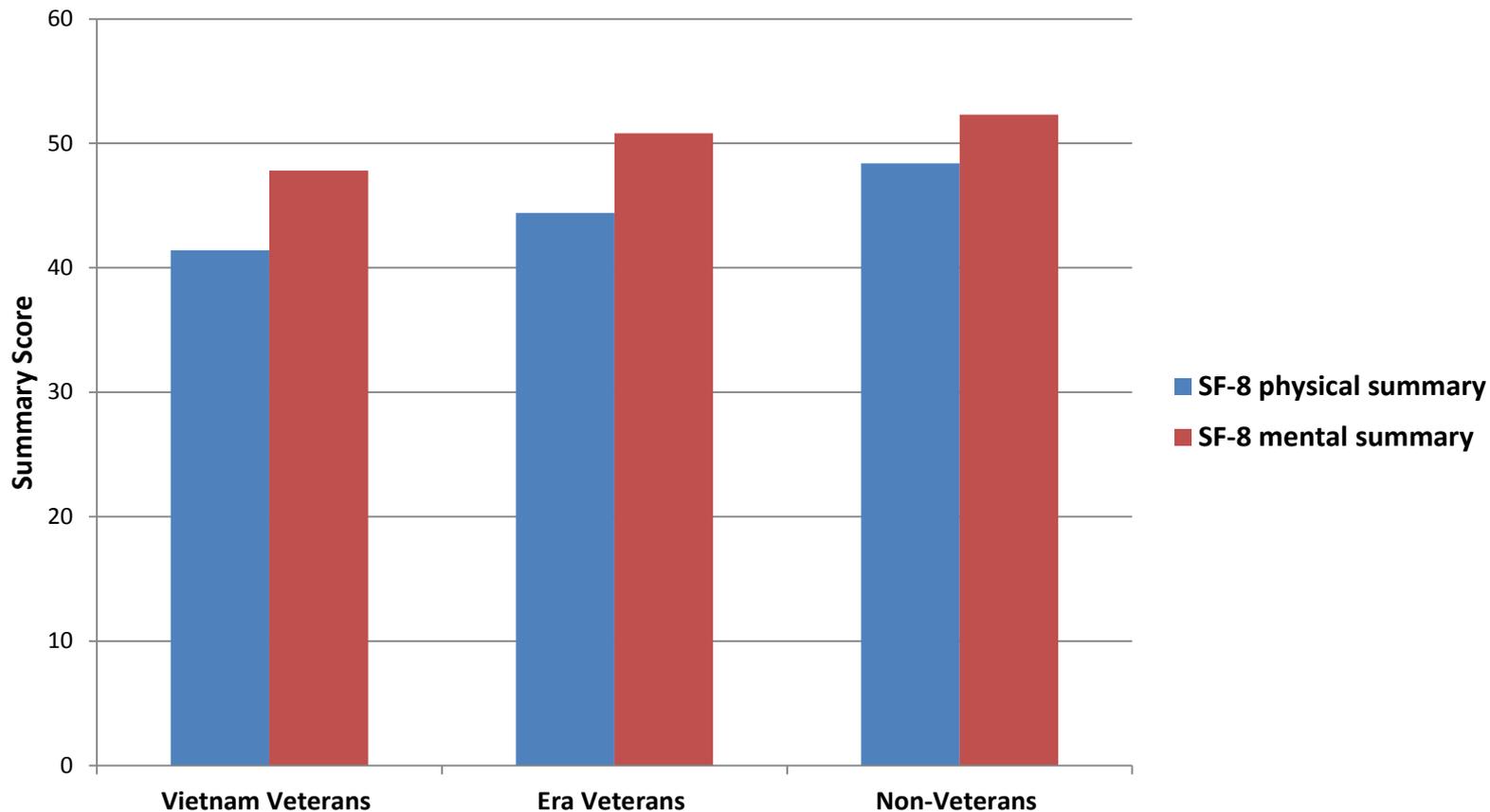
1. SF-8—Overall perception of health
2. Specific questions regarding
 - testing and clinical management of hepatitis
 - neurological conditions including stroke, Parkinson's disease, dementia, brain injury
3. History of specific health conditions
 - Cancers, circulatory system diseases, psychiatric disorders, other chronic conditions, presumptive conditions
4. Kessler-6— psychologic distress
5. PC-PTSD—Identifies probable post traumatic stress
6. Audit-C—Alcohol consumption





SF 8 RESULTS

Physical & Mental SF-8 Summary Scores by Respondent Group



p < 0.0001 for theater vs era veterans for physical & mental health
p < 0.0001 for theater vs non-veterans for physical & mental health



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HEALTH CONDITIONS

	Weighted % (95% CI)						OR (95% CI)					
	Vietnam Veterans		Era Veterans		Non-Veterans		Vietnam vs. era Veterans			Vietnam Veterans vs. non-Veterans		
	%		%		%		OR	95% CI		OR	95% CI	
Parkinson's disease	2.1		1.2		1.1		1.59	1.21	2.10	2.03	1.37	3.00
Diabetes Mellitus Type 2	29.4		25.7		19.0		1.19	1.10	1.29	1.77	1.58	1.99



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KESSLER-6 SUMMARY SCORE

	Weighted % (95% CI)									p-values	
	Vietnam Veterans			Era Veterans			Non-Veterans			Vietnam vs. era Veterans	Vietnam Veterans vs. non-Veterans
	%	95% CI		%	95% CI		%	95% CI			
										OR (95% CI)	
<13	89.6	88.7	90.5	95.5	95.1	95.9	98.2	97.8	98.7	Reference	Reference
≥13	10.4	9.5	11.3	4.5	4.1	4.9	1.8	1.3	2.2	2.26 (2.00, 2.55)	6.16 (4.64, 8.18)



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CHILDREN'S HEALTH

	Yes	No	Don't Know
Attention deficit hyperactivity disorder (ADHD), attention disorders (ADD, ADD-H), or behavioral disorders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning disabilities (for example, dyslexia)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intellectual disabilities (Formerly called mental retardation, now defined as starting in childhood, an IQ of 70 or below that interferes with skills of daily living)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Congenital anomalies, congenital malformations, or birth defects (for example, scoliosis, cleft palate, benign tumors or cysts)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Missing limbs or limb deformities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recurrent infections (infections that are great in number, severe, or long lasting)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neural tube defects (for example, spina bifida, anencephaly, encephalocele)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Childhood cancers (cancers occurring before the age of 21)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reproductive effects (for example, impaired fertility, sperm abnormalities)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

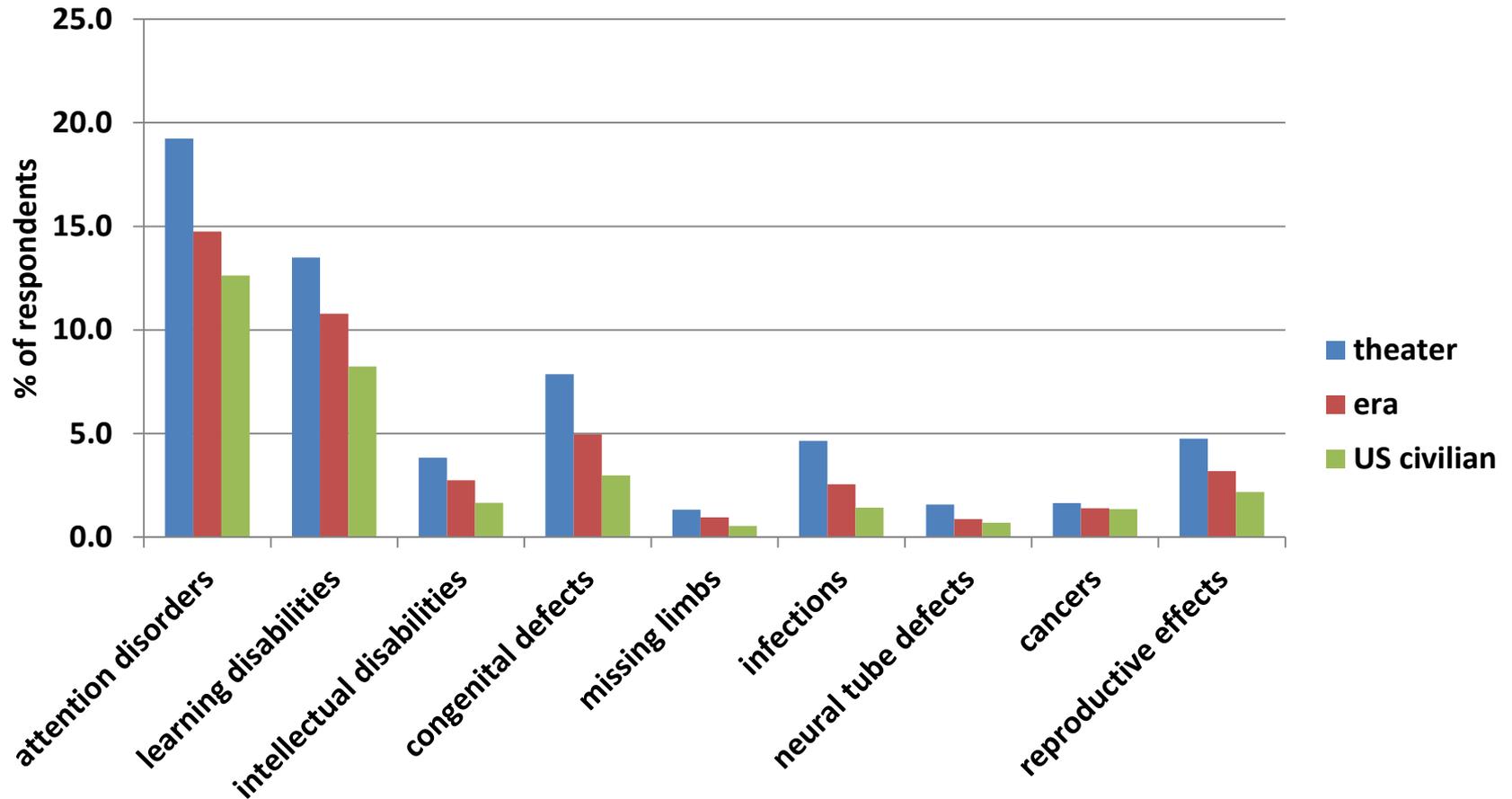


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CHILDREN'S HEALTH

Children's Health Conditions



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BLUE WATER NAVY – DEMOGRAPHICS

	n	%
Age		
58-65	278	28.2
66-70	400	40.5
71-75	213	21.6
76-80	62	6.3
>80	34	3.4
Sex		
Male	985	99.8
Female	2	0.2
Race		
White (single race)	872	90.1
Black (single race)	51	5.3
Others (single race)	17	1.8
Multi-race	28	2.9



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BLUE WATER NAVY—SF-8 RESULTS

	Score (SD)	
SF-8 physical summary measure (mean (SD))	44.6	(10.4)
SF-8 mental summary measure (mean (SD))	51.3	(9.0)



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LIMITATIONS OF VE-HEROeS

- Self-report...(chronic HCV and neurologic disorders validated against VHA's or external medical records)
- Some health conditions of Vietnam Veterans may be too rare to allow comparisons or to draw conclusions about differences
- % of sample declined to participate: sensitive questions, long survey, “too little, too late”, “how can I trust you with this information?”
- Epidemiologic studies have limits. Association, not causation



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VE-HEROeS AND HEALTH DISPARITIES

- First national study of overall health of Vietnam Veterans in over 30 years; large study; response goals met—opportunity to measure disparities and compare to non-theater and non-Veterans
- Vietnam Veterans & family members on Steering Committee – assisted cultural competency
- First opportunity to examine health disparities that may exist for Blue Water Navy Vietnam Veterans
- Exploratory examination of health of children and grandchildren
- Should help us understand Vietnam Veterans' health at age 70
- Should provide data for care, policy, further research



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VA



U.S. Department
of Veterans Affairs

Focus on Health Equity and Action:

New Vietnam Veteran Studies on Health and Mortality

Poll Question 2



FHEA 10.26.2017



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POLL QUESTION 2

A percentage of Vietnam Veterans have died. How would this mortality affect our understanding of the health of the cohort?

- Prior mortality may skew our measurement of lifetime prevalence of certain health conditions
- Understanding prior mortality improves our understanding of lifelong health effects of Vietnam theater service
- Mortality data will not contribute to our understanding of lifetime health of Vietnam Veterans



VA



U.S. Department
of Veterans Affairs

Vietnam Veterans Mortality Study



Photo from defense.gov



FHEA 10.26. 2017



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OBJECTIVE

Determine rates, causes, and patterns of mortality of Vietnam War theater Veterans from 1979 through 2014 and determine if there are differences when compared to non-theater 'era' Veterans.



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METHODS—RATES AND CAUSES OF DEATH

Base population—

**all Veterans (living and dead) who served Feb '61 – May '75
from USVETS**

Vietnam theater population—

**Defense Manpower Data Center's
*Vietnam File***

Vietnam 'era' population—

**Base population minus
*Vietnam File***

Deceased—

**Rates from multiple
sources of death data;
Causes from NDI**

Using VA, DoD, CDC data



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TIMELINE

- June 2016 – February 2017
 - Study team named
 - Research questions defined
 - Sources of data determined
 - Presentations to stakeholders done
 - Steering committee named
 - First draft of protocol
 - Required regulatory reviews/approvals determined

- March 2017-December 2017:
 - Regulatory/Reviews initiated
 - (Steering Committee, Scientific Review, IRB, DoD's DMDC, VHA's SDR, VHA's Data Access (DART))

- January 2018 and beyond: Analyses and reporting



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VIETNAM VETERANS MORTALITY STUDY— LIMITATIONS

- Death certificates are not always complete and accurate in reporting cause(s) of death
 - we will not be examining medical records



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MORTALITY STUDY— CAN CONTRIBUTE TO OUR UNDERSTANDING OF DISPARITIES

- We will use the entire population of Vietnam theater and era Veterans—no sampling error
- Comparisons of theater to ‘non-theater’ Veterans may allow us to examine outcomes of disparities in life; we may compare with US non-veterans from publically available data
- Last VA study of Vietnam Veteran mortality was from a sample in 2006—a decade of additional data will be informative
- Steering Committee includes Veterans and family members and has guided our questions and approaches
- We hope to use these data to inform policy and care for remaining Veterans of this era, and for Veterans of future eras of service



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VIETNAM STUDIES TEAM

Study Role	Name	Organization
Principal Investigator:	Victoria J. Davey PhD, MPH, RN	VHA Office of Research and Development
Co-Investigator:	Aaron Schneiderman, PhD, MPH, RN	Epidemiology Program/Post-Deployment Health Services/VHA Office of Patient Care Services
Co-Investigator:	Yasmin Cypel, PhD, MS	“
Co-Investigator:	Erick Ishii, PhD, MPH	“
Co-Investigator:	Fatema Akhtar, MS	“
Co-Investigator:	Sybil W. Morley, MPH	VHA Center of Excellence for Suicide Prevention



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CONCLUSIONS—VE-HEROeS & THE VIETNAM VETERAN MORTALITY STUDY

- Health differences exist between Vietnam theater, Vietnam era, and non-Veterans at age 70
 - Unique features of the Vietnam War set up potential for disparities—draft, individual rotations, substance use/abuse.
 - VA was not the ‘provider of choice’ initially—policies and practices required legislation.
 - Societal conditions and pressures—set up Veterans for disparities after military discharge
- Data we collect in VE-HEROeS and the Vietnam Veteran Mortality Study should further inform sources and outcomes of disparities





PRESENTER INFORMATION

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THANK YOU!



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OFFICE OF HEALTH EQUITY INFORMATION

October 23, 2017

Snapshot of Fiscal Year 2017 Accomplishments in Veteran Health Equity



The VA Office of Health Equity (OHE) is delighted to share some of our accomplishments over the past fiscal year in championing health equity for Veterans. Here are a few highlights:

- OHE published the [National Veterans Health Equity Report](#), which is also available for downloading onto your mobile device via an [ePUB version](#).
- OHE released [Virtual Training Modules](#) to assist clinicians, non-clinicians, Veterans, and stakeholders in understanding the importance of assessing, and increasing competency, of health equity issues for Veterans of all races and ethnicities.

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www.va.gov/healthequity

- OHE Listserv sign up link:
<http://www.va.gov/HEALTHHEQUITY/Updates.asp>
- Next FHEA Cyberseminar 11.16.2017 : 3-4P ET

***The VA Office of Health Equity (OHE) was created in 2012 to champion reduction of health and healthcare disparities and galvanize efforts, enhance synergy across the VA and spur actions towards achieving health equity for all Veterans**

