



Women Veterans' Reproductive Health Research Conference

will begin at:

9 am PT | 10 am MT | 11 am CT | 12 pm ET



Welcome!

Elizabeth M. Yano, PhD, MSPH

Director, VA HSR&D Center for the Study of Healthcare Innovation, Implementation & Policy, VA Greater LA Healthcare System

Director, VA Women's Health Research Network (WHRN) Consortium

Adjunct Professor of Public Health & Medicine, UCLA

Opening Remarks: HSR&D



David Atkins, MD, MPH
Director, VA HSR&D Service

VA Office of Women's Health (OWH)



Patricia M. Hayes, PhD
Chief Officer, VA OWH,
Veterans Health Administration



Amanda M. Johnson, MD
Director of Reproductive Health, VA OWH,
Veterans Health Administration

The Role of Research in Meeting Reproductive Health Care Needs of Women Veterans

Patricia M. Hayes, PhD
Amanda M. Johnson, MD
Office of Women's Health

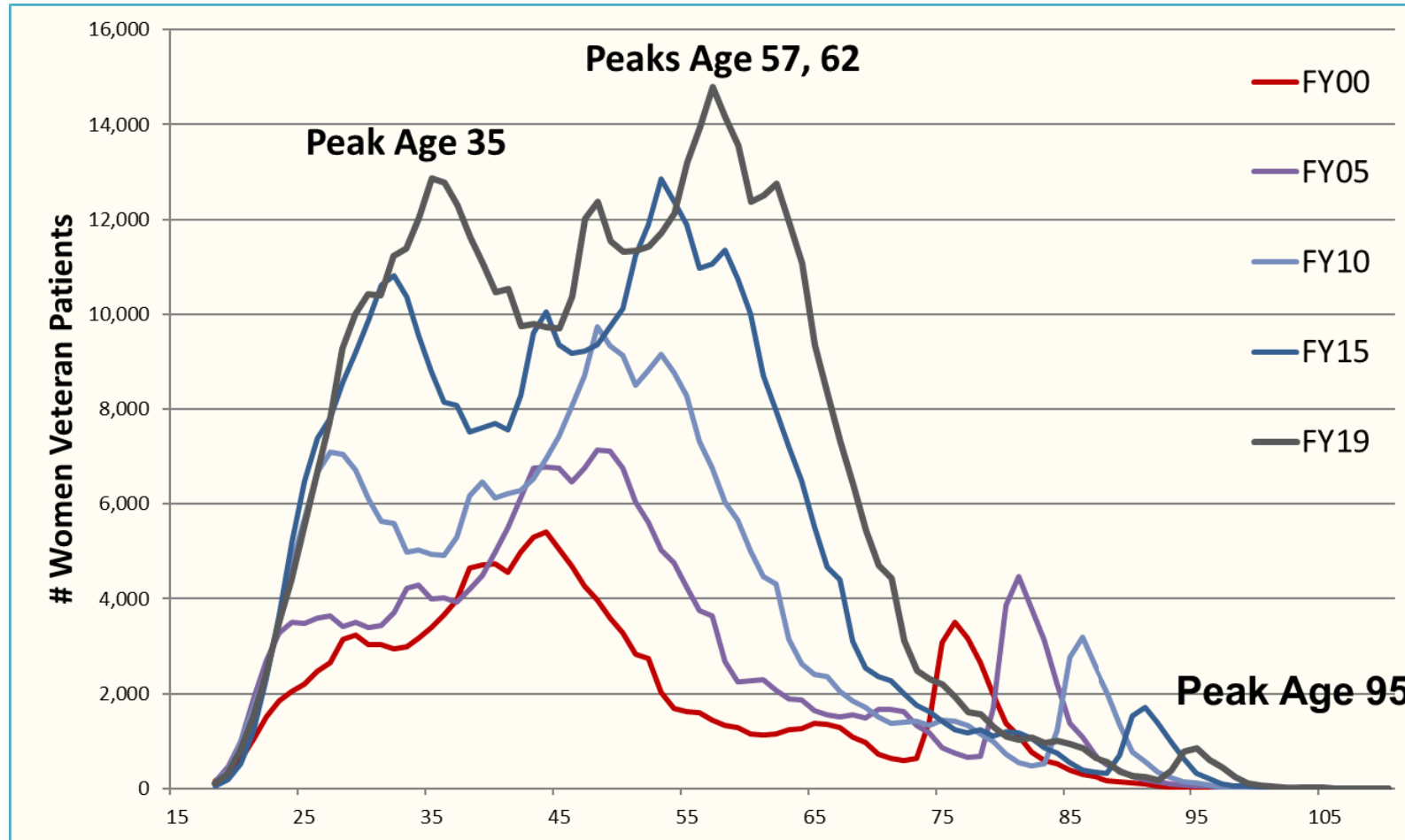


Women in the Military: A Growing Trend



"Today" statistics referenced from 2019 Military One Source Report found <https://download.militaryonesource.mil/12038/MOS/Reports/2019-demographics-report.pdf>

Age Distribution of Women VHA Patients



Reproductive Health Needs of Women Veterans

Age	18-45	45-64	65+
Career stage	Military (deployment/combat) → Separation → Veteran status		
Reproductive Needs	Menstrual Health		
	Contraception		
	Pregnancy		
	Infertility		
	Cervical cancer screening		
		Menopause	
		Osteoporosis	
		Breast cancer screening	
		Sexual dysfunction	
		Sexually transmitted infections	
		Pelvic floor disorders	
	Urinary conditions		
	Gynecologic basic and specialty care		

Office of Women's Health

Vision:

VHA strives to be a national leader in the provision of health care for women Veterans, thereby raising the standard of care for all women

Mission:

VHA Women's Health serves as a trusted resource for the field and works to ensure that women Veterans experience timely, high quality comprehensive care in a sensitive and safe environment at all points of care

Role of Research In Meeting Reproductive Health Needs of Veterans

- **Women Veterans have unique characteristics compared to general population**
- **It is critical to understand women Veterans in order to best serve them**
 - **Demographics**
 - **Medical and Mental Health Conditions**
 - **Healthcare utilization**
- **Research is been critical to informing OWH Policy in every area**
 - **Maternity care, Infertility care, Contraceptive Access, Pelvic Pain and Pelvic Floor Disorders**
- **Unique opportunity in VHA – large national health system**

Thank You for Your Dedication to Women Veterans



POCs:

Patricia M. Hayes, Ph.D.

Chief Officer

Office of Women's Health

Patricia.Hayes@va.gov

Amanda M. Johnson, MD

Director, Reproductive
Health

Office of Women's Health

Amanda.Johnson@va.gov



Conference Overview

Elizabeth W. Patton, MD

Senior Consultant to the Reproductive Health group, VA
Office of Women's Health

Director, Generalist Division Department of Obstetrics &
Gynecology, Boston Medical Center

Assistant Professor, Obstetrics & Gynecology, Boston
University School of Medicine

Please share in the Q&A panel/box

**Where are you
joining in from?**

**What is your role
or connection to
the topic of Veteran
Reproductive Health?**

Conference Goals

- To give a snapshot of the dynamic and growing research field around veteran reproductive health
- To connect research to the needs of the end users – the VA health system, veterans and their clinicians
- To explore areas for future research directions with a diverse group of stakeholders.

Conference Agenda

Time	Panel
9:30-10:15 am PT (12:30-1:15 pm ET)	Panel 1: Women Veterans' Reproductive Health: From Epidemiology to Implementation
10:15-11 am PT (1:15-2 pm ET)	Panel 2: VA Gynecology Across the Life Course
11-11:15 am PT (2-2:15 pm ET)	BREAK
11:15-12 pm PT (2:15-3 pm ET)	Panel 3: Reproductive Mental Health from Pregnancy to Menopause
12-12:45 pm PT (3-3:45 pm ET)	Panel 4: Where Do We Go From Here? Setting a VA Reproductive Health Research Agenda

Logistics

- Put your questions in the Q&A box!
- Tech issues?
 - *Dissociation of sound from slides is often a bandwidth issue that will fix itself in a few moments*
 - *Audio not working? If using the computer audio, try using the phone callback option*
 - *Bigger struggles? Contact the VA IT Helpdesk*

Panel 1: *Women Veterans' Reproductive Health: From Epidemiology to Implementation*



Lisa Callegari, MD, MPH



Kristin M. Mattocks, PhD, MPH



Ginny Ryan, MD, MA



Amanda M. Johnson, MD
Discussant

The MyPath Journey: Innovating to Improve Family Planning in VA Primary Care



Lisa Callegari, MD, MPH
VA Puget Sound Health Care System
University of Washington

Introduction



- Veterans who could become pregnant are a growing population
- Elevated risk of poor reproductive health outcomes, due to high burden of medical/mental health comorbidities
- Majority have needs for **family planning services** to support their reproductive goals/desires
- VA primary care physicians (PCPs) poised to address needs

...BUT only 44% of women Veterans capable of pregnancy discussed family planning needs with PCPs in past year

The Opportunity: What's going on?

PCP Barriers

- Lack of time
- Patient didn't ask
- Insufficient skills/practice with counseling



Patient Barriers

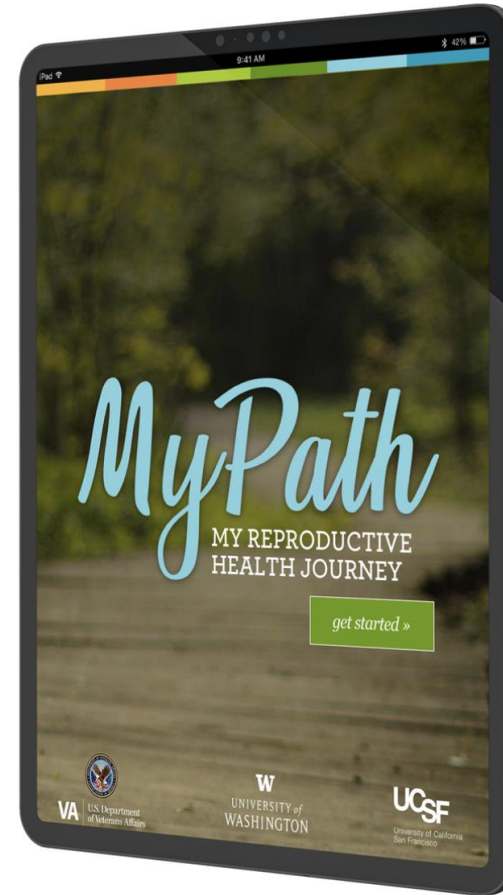
- Not sure how to bring it up
- Concerned not a priority for PCP
- Prior negative experiences



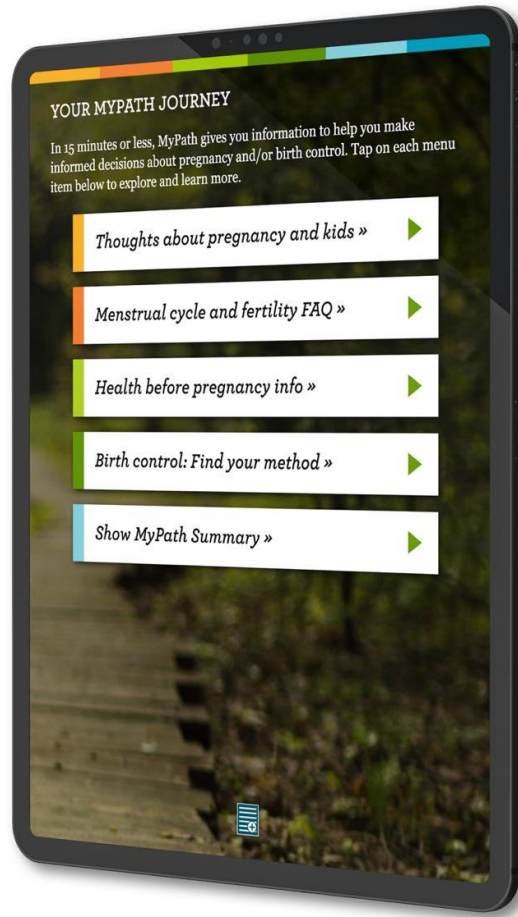
How can we use technology to address barriers and improve quantity and quality of family planning discussions?

Approach: Innovation Part 1

- Patient-facing web-based decision support tools promote shared decision making
- No existing tools provided holistic approach to *both* preconception and contraception
- “MyPath” developed in conjunction w/Veterans, PCPs and scientific content experts



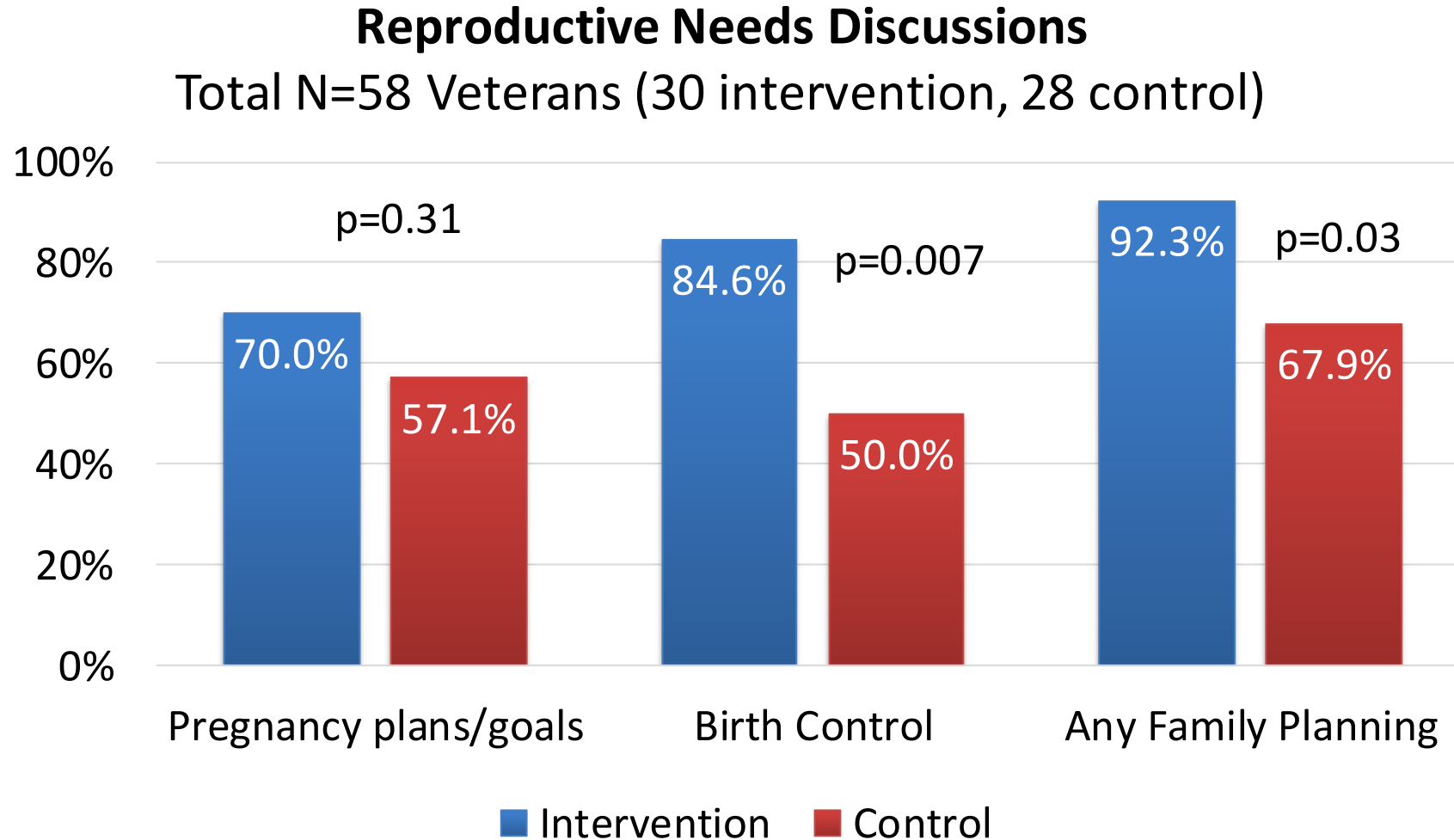
MyPath Overview



- Designed to be used *prior to* visits by Veterans
- MyPath's objectives include to
 - Elicit reproductive desires and goals
 - Build knowledge and address common misperceptions
 - Facilitate selection of birth control aligned with values and preferences
 - Promote patient-centered discussions/shared decision making
- MyPath *Summary Page* can help guide clinic visit

<https://info.mypathtool.org/>

Key Findings: Pilot Testing



Key Findings: Pilot Testing

Patient-Centered Outcomes	Baseline to Post-Visit Change Within-Group		Comparison of Change Between-Group
	Intervention N=30	Control N=28	P-value
Communication self-efficacy (5-point scale)	+0.8 (1.0)***	+0.2 (0.7)	0.02
Correct family planning knowledge (14-item assessment)	+1.7 (1.5)***	+0.2 (1.3)	<0.001
Contraceptive decision conflict	-23%*	-7%	0.09
Contraceptive values concordance	+33%**	+7%	0.11

***p<0.001, **p<0.01, *p<0.05

Approach: Innovation Part 2



How can we deliver MyPath as part of routine care in a low-cost, scalable way?



Text Message
Wed, Aug 11, 9:11 AM

For all Veterans who want info about birth control, fertility or preparing for pregnancy: please use the MyPath tool before your primary care visit. MyPath can help you get the most out of your visit!

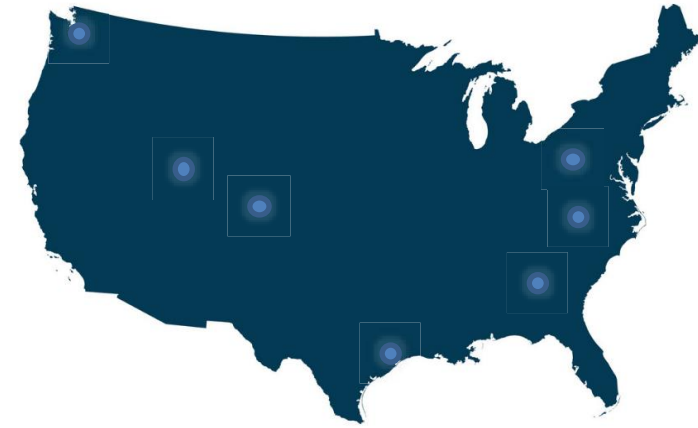
Questions? Call MyPath Study Team at [206-277-4177](tel:206-277-4177).

Reply STOP to stop receiving messages

vastudy.mypathtool.org

Impact: Towards Implementation

- MyPath pragmatic cluster RCT (IIR 19-387)
- 7 Women's Health PBRN sites
- 32 providers recruited; Veteran recruitment ongoing (target N=456)
- Patient-centered & clinical outcomes
- Treatment effect by race/ethnicity
- Partnership with **Office of Women's Health Services** to implement in VA if found to be effective



Impact Beyond VA...

The MyPath Collaborative



Acknowledgments

Collaborators

Sonya Borrero, MD MS

Karin Nelson, MS MSHS

David Arterburn, MD MPH

Alison Hamilton, PhD

Christine Dehlendorf, MD MS

Lori Gawron, MD MPH

VA Puget Sound MyPath Team

Sam Benson, MPH

Siobhan Mahorter, MPH

Molly Silvestrini, BA

Rachel Hunter-Merrill, MS

Leslie Taylor, PhD

Funding

VA HSR&D CDA 14-412

VA IIR 19-387

Operational Partners

Amanda Johnson, MD

Alicia Christy, MD MHSCR

Sally Haskell, MD MS

VA Women's Health Practice-Based Research Network

Susan Frayne, MD MPH

Diane Carney, MA

Veteran Advisory Board

Women 4 Women Veterans



Center for Maternal & Infant Outcomes Research in Translation (COMFORT)



Kristin Mattocks, PhD, MPH
VA Central Western Massachusetts

Introduction

- In 2013, little was known about pregnancy and maternity care among women Veterans. Small number of papers looking at mental health among pregnant Veterans and a few estimates on numbers of pregnant Veterans in VA care.
- My interest was in pregnancy as an example of non-VA care, since nearly all obstetrical care is provided by non-VA providers. This interest led to a focus on:
 - VA/non-VA care coordination (maternity care coordination)
 - Ability to find/select non-VA providers
 - Degree to which pregnant Veterans remained in VA care during pregnancy

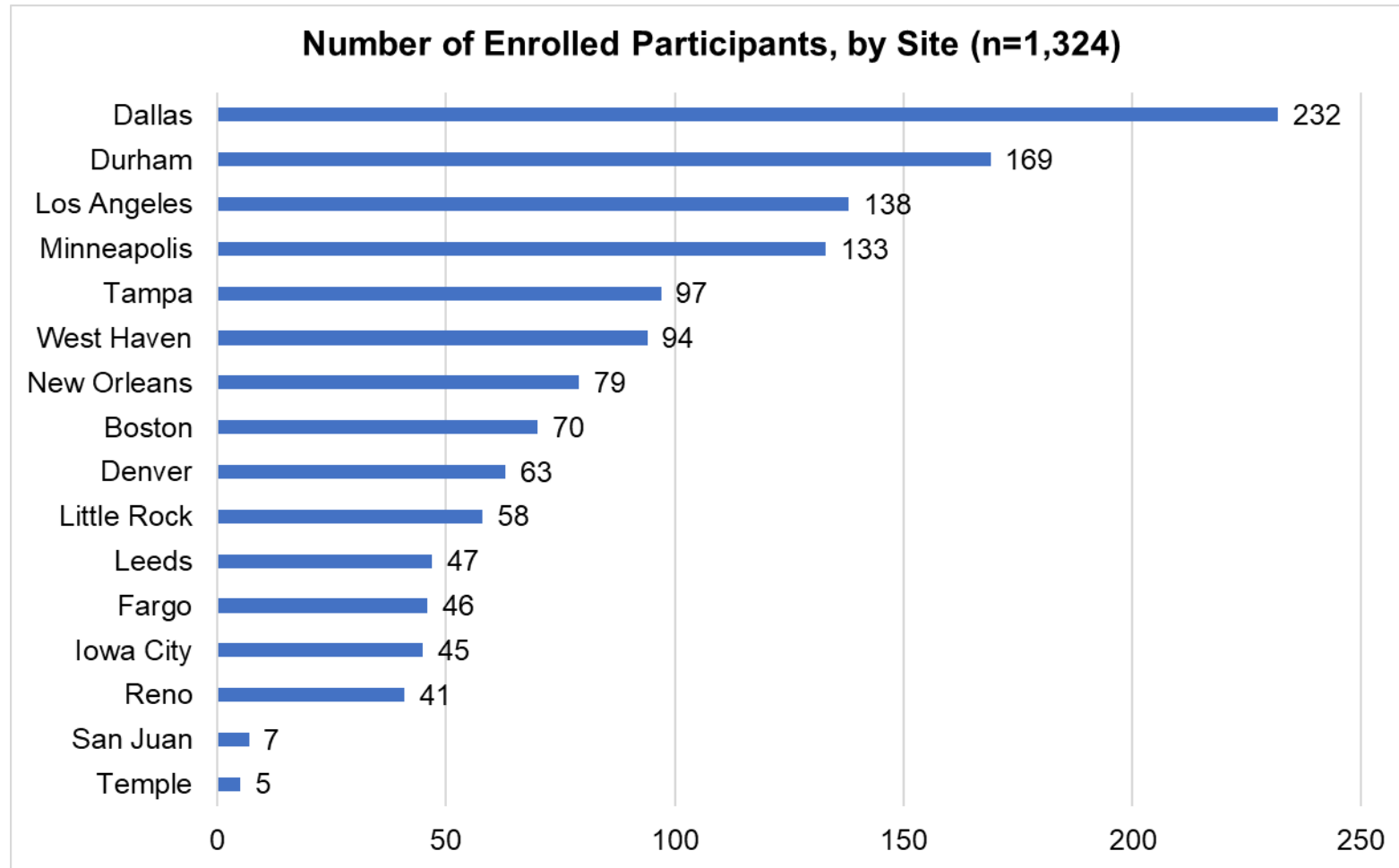
Introduction

- I also had an interest in understanding disparities in care and outcomes among racially/ethnically diverse pregnant Veterans, and among pregnant Veterans living in rural areas
- Overarching goals of the study over time:
 - Examine use of maternity care coordination among pregnant Veterans
 - Examine engagement with VA healthcare during and following pregnancy
 - Examine mental and physical health conditions among pregnant and postpartum Veterans
 - Examine infant outcomes and long-term health and social well-being among postpartum Veterans

COMFORT Study Design and Participants

- Mixed methods (prenatal & postpartum surveys, VA administrative/EHR data, qualitative interviews)
- 15+ site study that includes urban and rural VA facilities and outstanding PBRN site leads and study coordinators
- To date: we have enrolled **1,324 pregnant Veterans** and have conducted follow-up interviews with nearly 1,000 of these women.
- Demographics: 50% white, 25% Black, 21% Asian or Native American

COMFORT Participants, by Site



COMFORT Areas of Study

- Factors impacting access to prenatal care and utilization of maternity care coordination (Mattocks, 2019)
- Understanding perinatal depression (Kroll-Desrosiers, 2019, 2019, 2019, 2020, 2021 under review)
- Disparities in breastfeeding (Keddem, 2019)
- VA health services utilization during pregnancy (Grekin, 2020; Shivakumar, 2020)
- Racial differences in Cesarean section rates (Mattocks, 2021)
- Intimate partner violence among pregnant Veterans (Creech, 2021)

COMFORT Areas of Study

- Prenatal stress and alcohol use during pregnancy (Holzauer, 2021)
- Factors associated with quitting smoking during pregnancy (Kroll-Desrosiers, 2021)
- Racial differences in cardiovascular risk factors during pregnancy (Lumsden, under review)
- Impact of MST on maternal/infant bonding (Creech, under review)
- COVID-19 vaccine hesitancy among pregnant Veterans (Mattocks, under review)

COMFORT Areas of Study

- Sufficiency of information received during pregnancy (Sheahan, under review)
- Veterans' perinatal care and mental health experiences during COVID: The impact of past trauma (Mattocks, under review)
- Newborn outcomes among Veterans utilizing VHA Maternity Care Services (Kinney, under review)
- Prescription medication use among perinatal Veterans (Copeland, under review)

Conclusions

- We have made important strides in several areas of Veteran pregnancy and maternity care:
 - VA care utilization during and following pregnancy
 - Perinatal mental health conditions/care utilization
 - Comorbid conditions during pregnancy
 - Maternity care coordination
- More work needs to be done in these areas:
 - Racial/ethnic disparities in maternal and infant outcomes
 - The impact of social determinants of health on pregnant Veterans
 - Quality of non-VA obstetrical care

Clinical and Policy Implications/Impact

- Should consider targeted interventions promoting COVID vaccines to pregnant women in VA
- We should continue to examine pregnant Veterans' access to high quality obstetrical care, particularly under relatively-new Optum and TriWest contracts.
- Always some degree of concern regarding network adequacy of contracted providers, particularly in rural areas where obstetrical specialists are few (e.g., Montana, Wyoming)
- Social determinants are key: can we better understand housing, employment, WIC for pregnant Veterans?

Thank you!

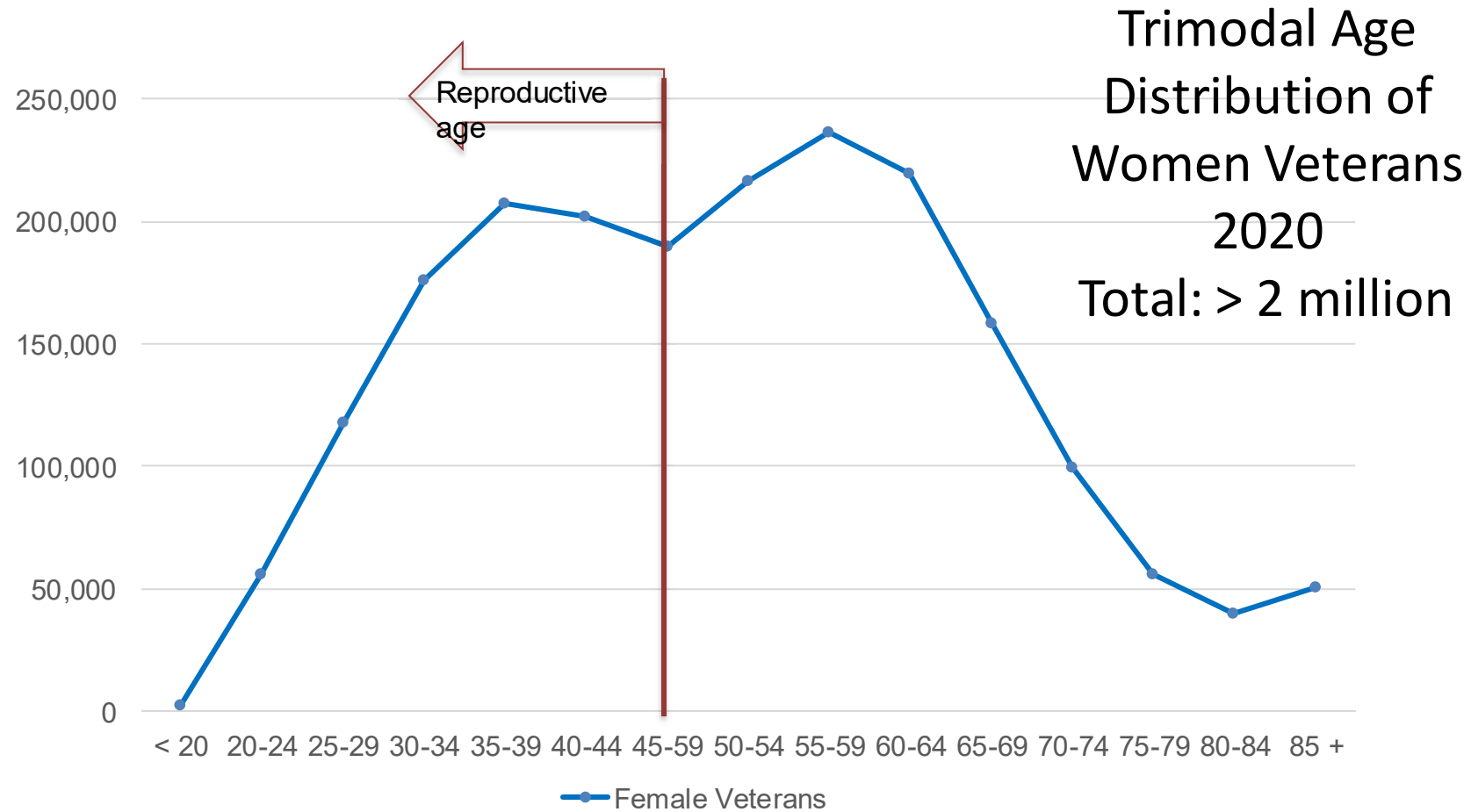
Infertility Prevalence and Associations in US Military Veterans and Care in VHA



Ginny L. Ryan, MD MA

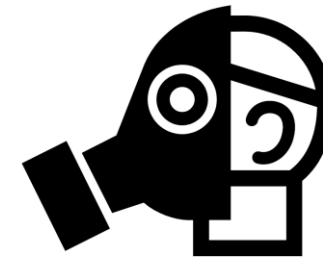
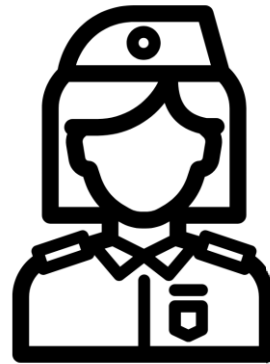
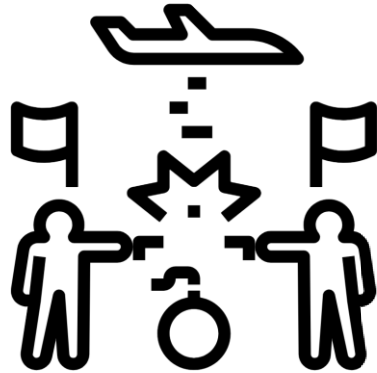
**Professor and REI Division Chief, University of Washington
Women's Health Provider and REI Consultant, Puget Sound VA**

Introduction

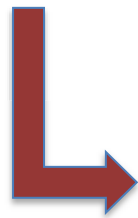
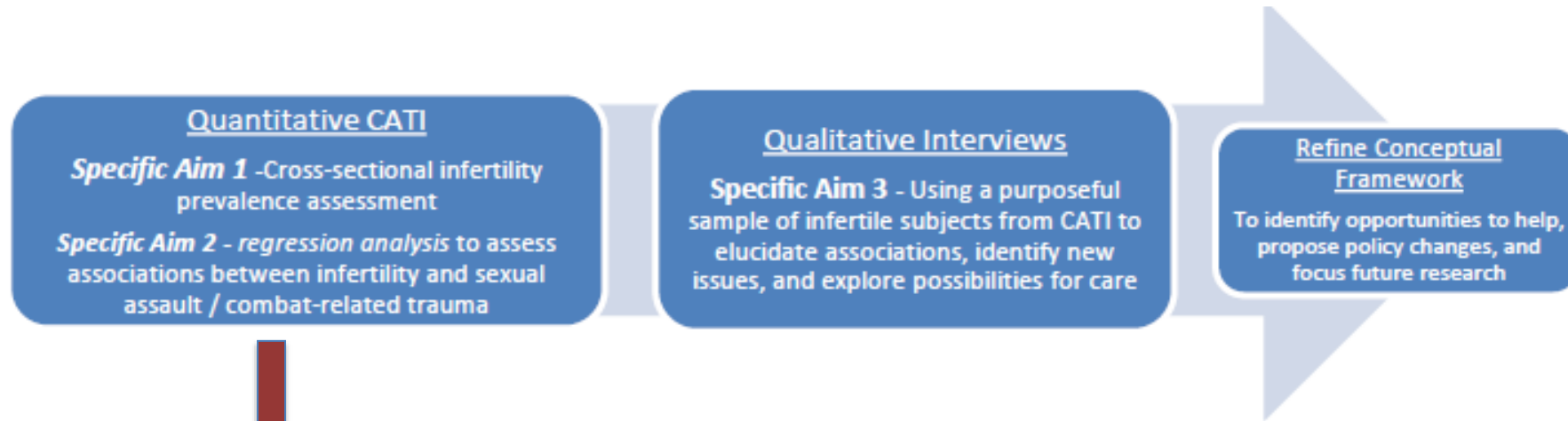


www.va.gov/vetdata/veteran_population.asp

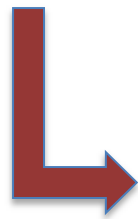
We Need a Better Understanding of Infertility in Veterans



Approach

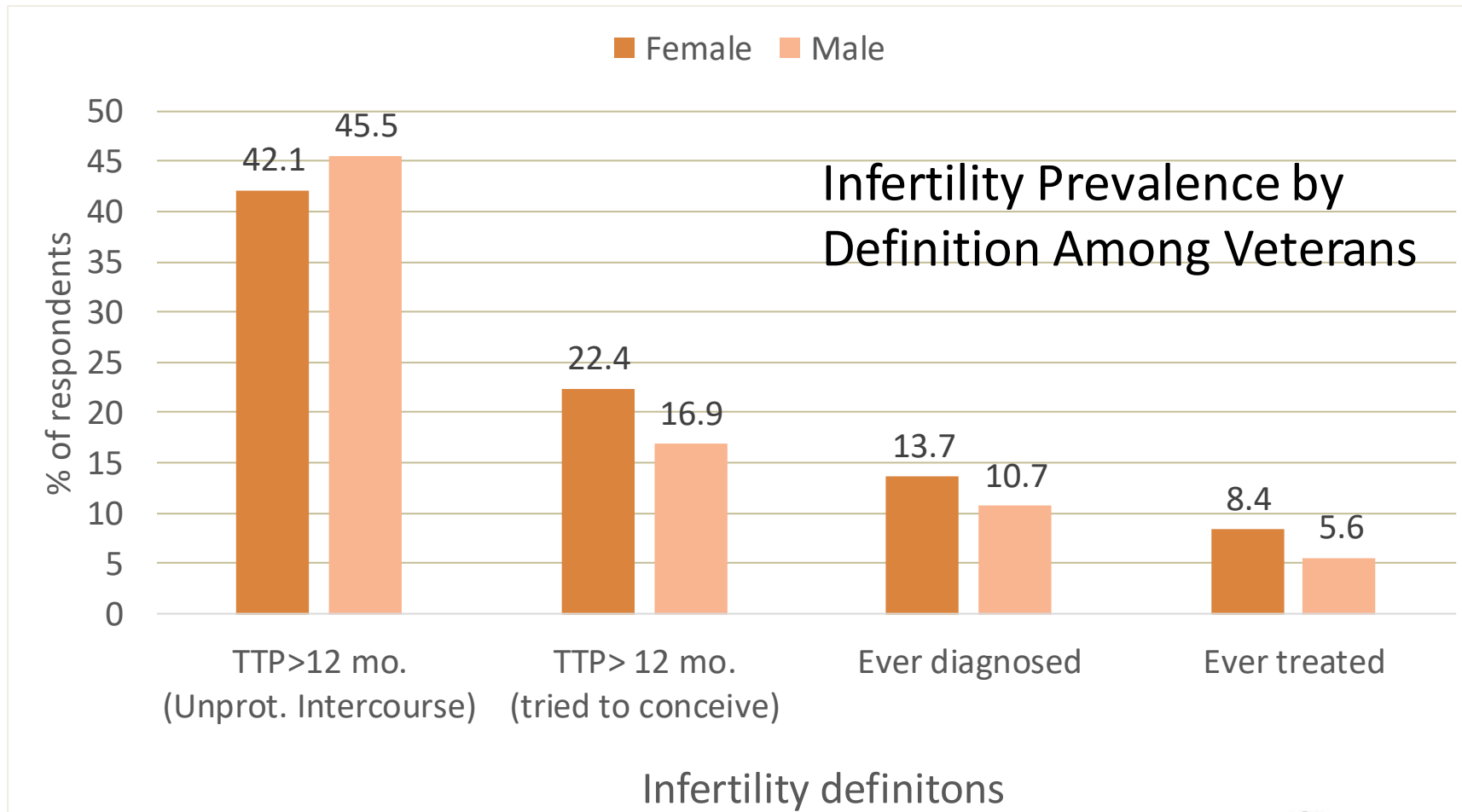


Assess ***infertility prevalence*** using multiple measures



Assess ***associations*** with sociodemographic, military, and medical characteristics as well as military combat and environmental exposures

Key Findings



Key Findings

Association with infertility	Women	Men
Number of Deployments	✓	✓
Length of Deployments		✓
PTSD	✓	✓
Depression	✓	
Dissatisfaction with sexual function	✓	✓

Key Findings

- 56% of women and 12% of men Veterans experienced a lifetime sexual assault – highest risk time for women was in-military; highest risk time for men was in childhood
- Lifetime sexual assault and SAIM were associated with diagnosis of infertility (but not with other prevalence measures) in women Veterans; no statistically significant associations in men

Key Findings

- During military service, Veterans exposed to PCBs and sulfur fires more likely to meet the definition of infertility than those not exposed to these chemicals.
- 30% of women Veterans and 33% of men Veterans were concerned about the impact of military environmental exposures on their reproductive health

Clinical and Policy Implications/Impact

- Veterans may represent a unique population at high risk of infertility
- There is likely an unmet need for infertility care in the VA, which is not set up to treat couples / family
- Studying this population may tell us something about the risks of these experiences, traumas, and exposures to reproductive health in the broader community
- We need to better understand the pathophysiology behind these associations

Discussion: *Women Veterans' Reproductive Health: From Epidemiology to Implementation*



Lisa Callegari, MD, MPH



Kristin M. Mattocks, PhD, MPH



Ginny Ryan, MD, MA



Amanda M. Johnson, MD
Discussant

Panel 2: *VA Gynecology Across the Life Course*



Lauren Beste, MD, MSc, FACP



Elisheva Danan, MD, MPH



Jodie G. Katon, PhD, MS



Alicia Y. Christy, MD, MHSCR
Discussant

Chlamydia and Gonorrhea Testing and Infection in Women Veterans



Lauren A. Beste, MD MSc FACP
VA Puget Sound Health Care System

Introduction



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

Sexually Transmitted Disease Surveillance 2018

- Chlamydia trachomatis (CT) in US (2018)
 - Highest number ever reported; 19% increase since 2014
 - 1.8 million US cases
- Gonorrhea (GC) in US (2018)
 - Highest number reported since 1991; 63% increase since 2014
 - 583,405 US cases

Chlamydia and gonorrhea disproportionately impact women

- **Risk of HIV acquisition**
- **Transmission to infants during pregnancy**
- **Disease sequelae**
 - Pelvic inflammatory disease
 - Infertility
 - Chronic pelvic pain
 - Ectopic pregnancy

CDC recommends annual screening for sexually active women <25 years old and those with risk factors

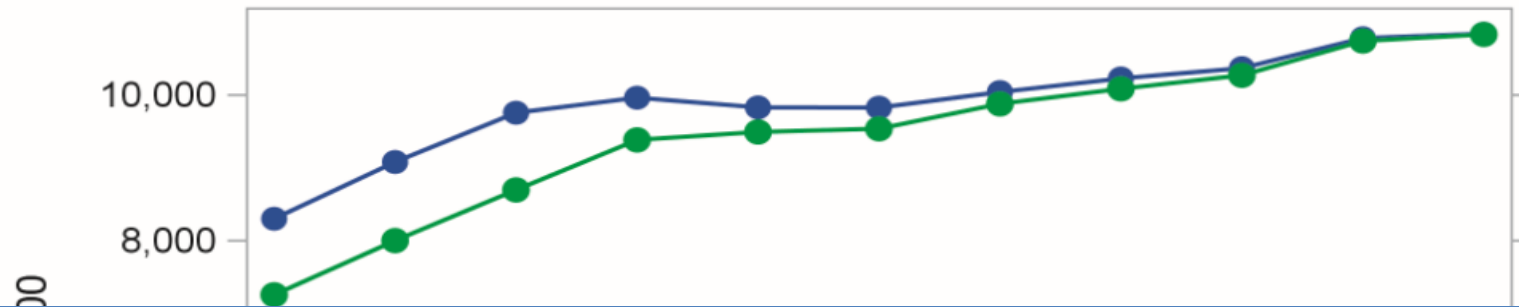
Approach

- Analysis of trends in GC and CT testing and infection in women Veterans from 2009-2019
- Included all women Veterans receiving VA health care in each year

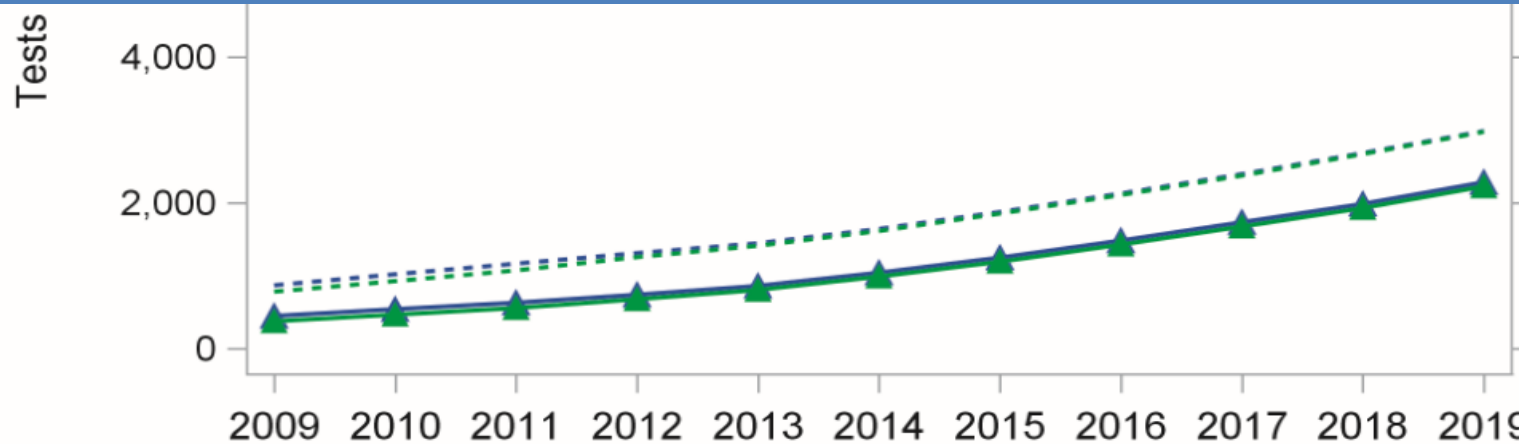
Case definition

- **Lab testing and results**
 - VHA electronic medical record data
 - Genitourinary, rectal, throat specimens
- **New cases** defined as positive lab result separated by ≥ 30 days from last positive lab
- **Limitation**
 - Only able to capture VHA-based tests

Chlamydia and gonorrhea tests per 100,000, by sex (2009-2019)

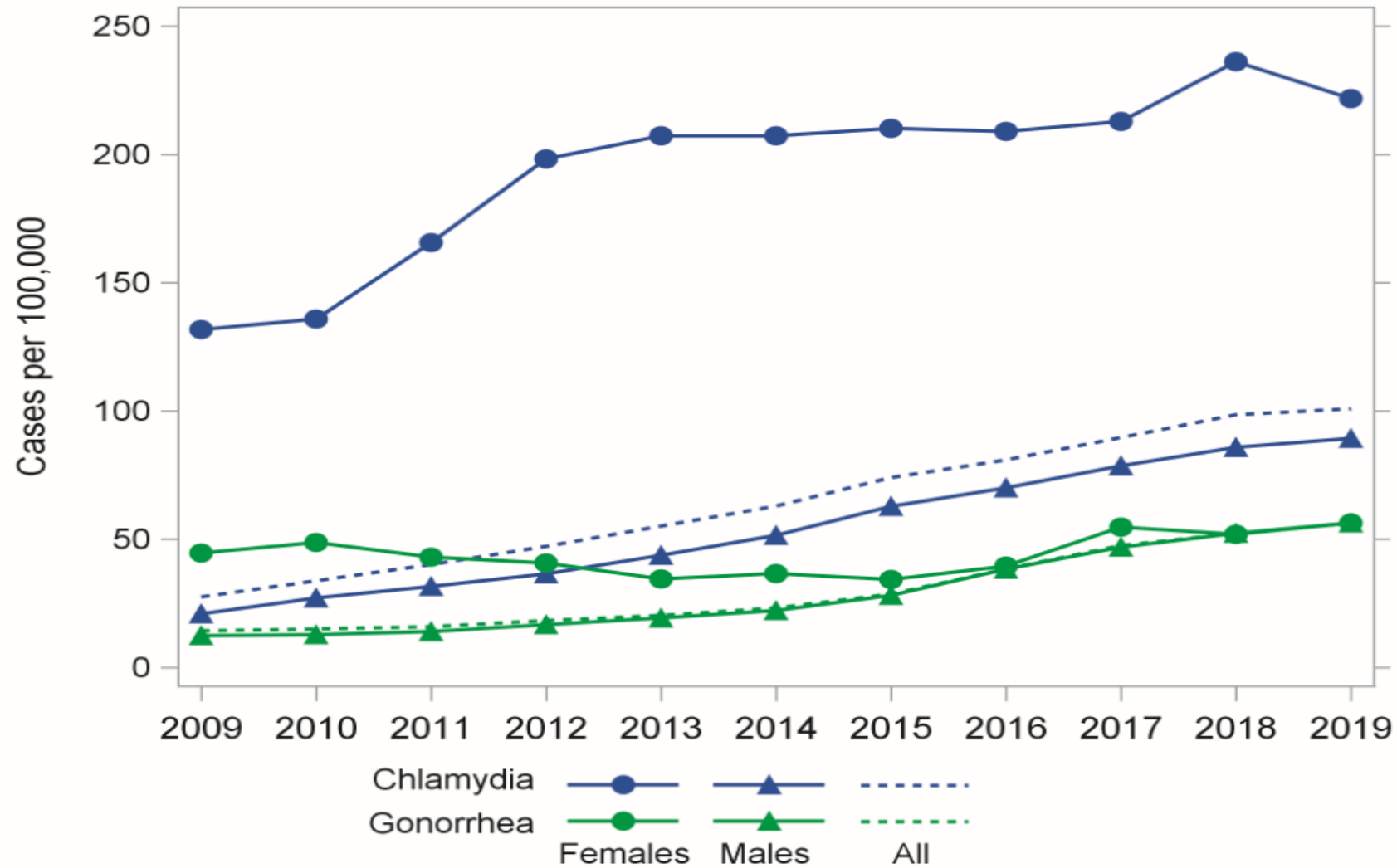


22.6% of women under age 25 were tested for GC/ CT in 2019



Chlamydia —●— Males —▲—
 Gonorrhea —●— Females —▲—
 All —●—

Chlamydia and gonorrhoea cases per 100,000, by sex (2009-2019)



GC/ CT cases in women Veterans (2019)

	Percent positivity (n=52,315 tests)	Total Incidence (/100k women)	Incidence in 18-24yo (/100k women)
Chlamydia (n=1,303 cases)	2.4%	222	2,050
Gonorrhea (n=331 cases)	0.6%	56	282

Subgroups of women Veterans have higher incidence

Chlamydia

- Younger age
- Urban residence
- South Atlantic
- HIV infection
- Black

Gonorrhea

- Younger age
- HIV infection
- Black or Multiracial

Key findings

- Chlamydia and gonorrhea incidence substantially increased from 2009-2019 among women Veterans
- Low overall screening rates among women < 25

Clinical and Policy Implications/Impact

- **GC and CT testing underused, especially in younger women**
- **Opportunities to develop a strategy for screening, such as:**
 - Provider training
 - Improved access to testing (e.g., home-based, MH clinics)
 - Routine screening for younger women
- **Gaps:** Lack of data on sexual risk behavior or SOGI status
- **Future study ideas:** sequelae of GC and CT infection in women Veterans, PrEP access, role of stigma

Special thanks to HHRC Data and Analytics team and collaborators

- Shimrit Keddem, PhD
- Carolyn Gardella, MD MPH
- Joleen Borgerding, PhD
 - Elliott Lowy, PhD
 - George Hauser, MD
 - Marissa Maier, MD
- Maggie Chartier, PsyD
- David Ross, MD PhD

Cervical Cancer Screening

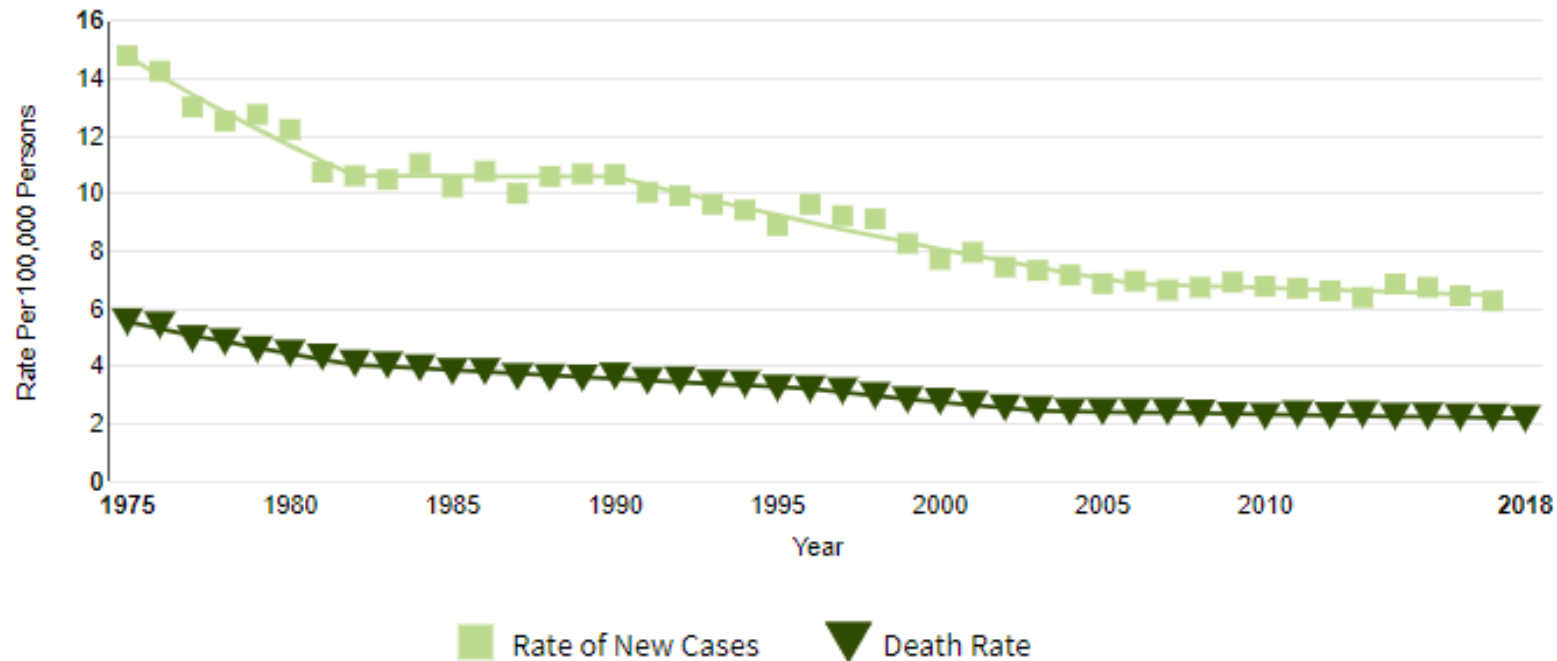
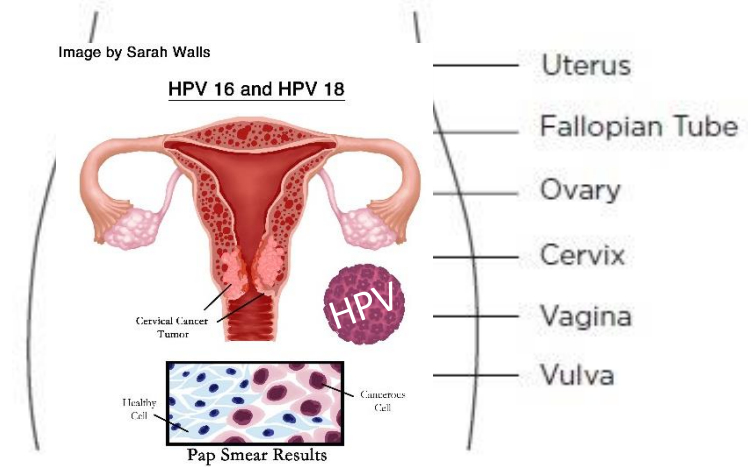


Elisheva Danan, MD, MPH
Minneapolis VA Health Care System

Cervical Cancer

2021 U.S. Estimates:

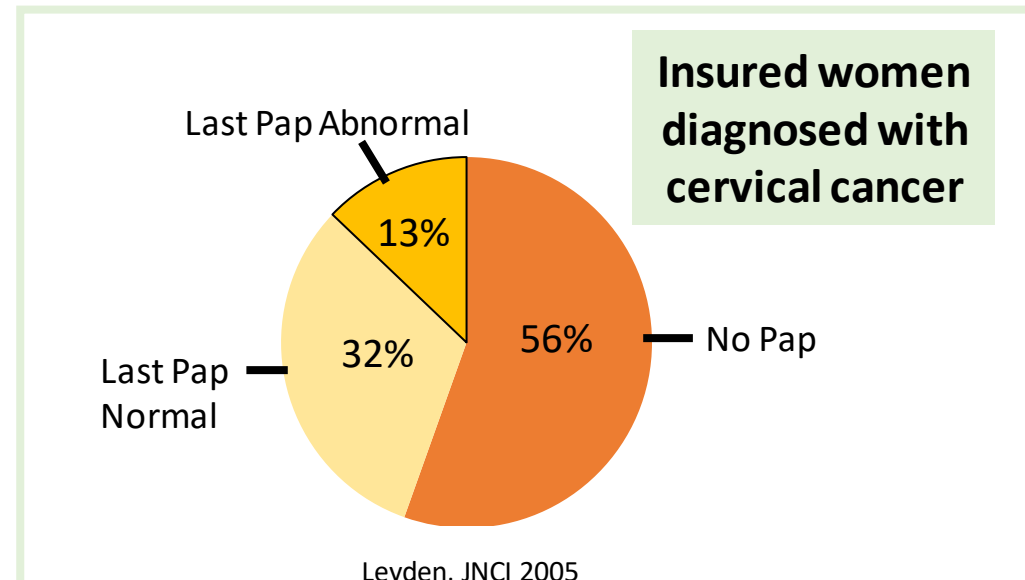
- 14,480 new cervical cancer cases
- 4,290 cervical cancer deaths



Risk factors for Cervical Cancer

Most new cases of cervical cancer are in women who have never been screened

- Lower screening rates:
 - Uninsured or no usual source of care
 - Rural area
 - Older women
 - Lower health literacy or education
 - Female sexual partners
 - Transgender
 - Severe mental illness
 - Disabilities
 - +/- Sexual assault



Harper 2020; Brown 2014; Nolan 2014; Tracy 2013; Peitzmeier 2014; Tabaac 2018; James 2017; Horner-Johnson 2014; Armour 2009; Coker 2009; CDC 2017; National Intimate Partner and Sexual Violence Survey

Approaches to cervical cancer screening research in VA

- Risk factor data
- Screening completion
- Patient results notification and follow-up
- Screening experience and perspectives
- Clinical trial vs. implementation study

Data sources:



Key Findings in VA Cervical Cancer Screening

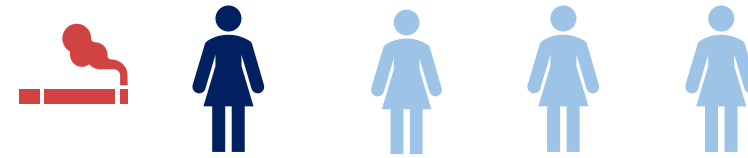
System-level predictors of variation in screening and follow-up:

- 85% screening rate across all VA facilities (low: 72%) (eQM data)
 - 93% Health People 2020 goal
- Designated WHPs screen more reliably (Bean-Mayberry 2015)
 - 25% of women receive primary care from a non-WHP (Cordasco 2019)
- Clinical facility features predict screening completion (Soban 2005)
- 48% of VA sites (20 out of 42) inspected by VA OIG in 2019-2020 were non-compliant with follow-up requirements

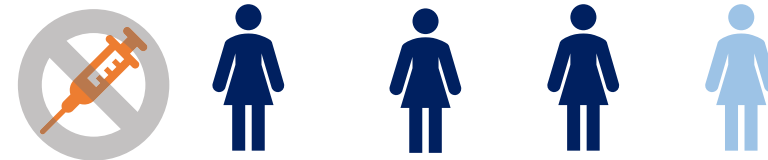
Key Findings in VA Cervical Cancer Screening

Individual risk for cancer and inadequate screening:

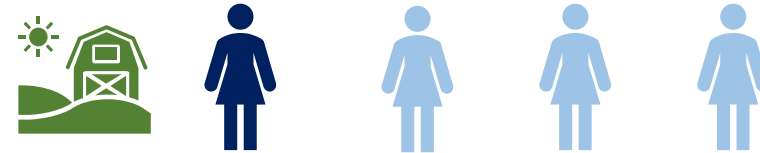
- 1 in 4 smokes cigarettes
- 75% ages 19-26 not vaccinated against HPV when arrive at VA
- 25% live in rural areas
- Women Vets ages 50-64 less likely to be screened in past 3 years than women 21-29



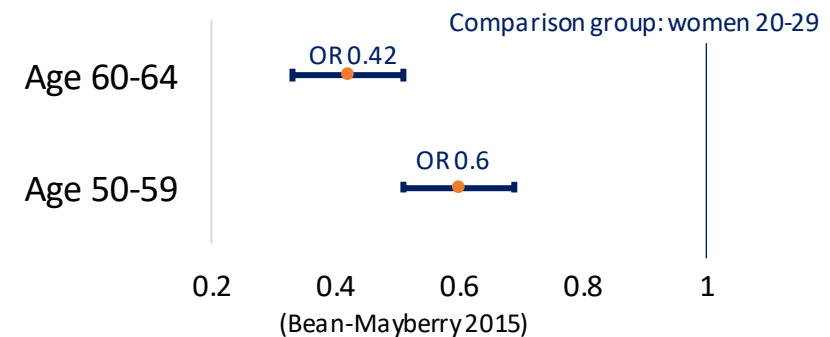
(Brown 2010; Duffy 2012; Farmer 2011; Weinberger 2016)



(Nobel 2019)

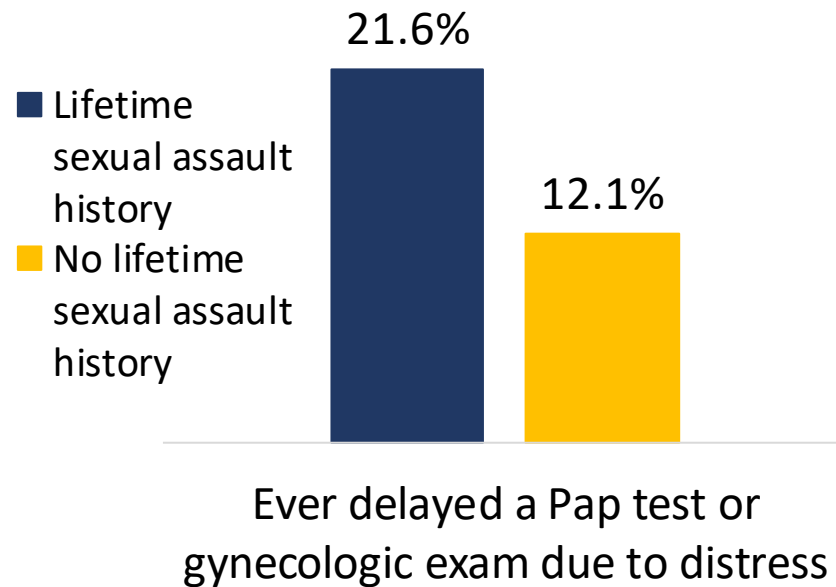


(Frayne 2018)



Key Findings: screening & sexual assault

58.7% of women veterans using VA primary care reported lifetime sexual assault (616 of 1,049)



Women Veterans with history of lifetime sexual assault (LSA):

- Higher rate of abnormal Pap test (Sadler 2011)
- Higher rate of mod-high anxiety, distress and discomfort related to pelvic exams (44% vs. 25%)
- LSA + PTSD: higher rate of beliefs that pelvic exams are unnecessary or unsafe (Weitlauf 2010)

No difference in Pap completion (CDW data) based on Depression or PTSD diagnosis (Weitlauf 2013), or lifetime sexual assault

Conclusions

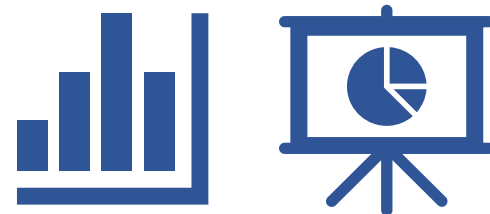
- Women Veterans face both common and unique individual risk factors for cervical cancer and inadequate screening, and system-level variation in inadequate screening and follow-up of abnormal results
- Screening experiences vary
- Overall screening rates are relatively high

Clinical and Policy Implications/Impact



- Trauma-sensitive care
- Novel screening methods
- Evidence-based care models

- Smoking cessation
- HPV vaccination
- Clinical facility features
- Designated WHPs



Questions?

Elisheva Danan, MD, MPH
elizabeth.danan@va.gov

VA Care for Uterine Fibroids & Racial Inequities



Jodie G Katon, PhD, MS
**VA Puget Sound Health Care System,
HSR&D Center of Innovation for
Veteran-Centered & Value-Driven Care**

Introduction: Uterine Fibroid Basics

- By age 50, 70% of White and 85% of Black women have fibroids, with 30% symptomatic
- Negatively impact health, functioning, and quality of life
- Estimated \$34 billion in annual healthcare costs
- Account for a third of hysterectomies in the US
- Treatment decision making is complex
- If surgical treatment indicated minimally invasive approaches are preferred

Baird, 2003; Cardoso, 2012; ACOG, 2008; Laughlin-Tommaso, 2017

Introduction: Black/white Inequities

Black women more likely than white women to:

- Have uterine fibroids
- Have more and larger fibroids
- Undergo hysterectomy for uterine fibroids
- Have open abdominal vs minimally invasive surgeries
- Experience complications from surgeries

Race is a SOCIAL not biologic construct. Racial health inequities are downstream consequences of RACISM

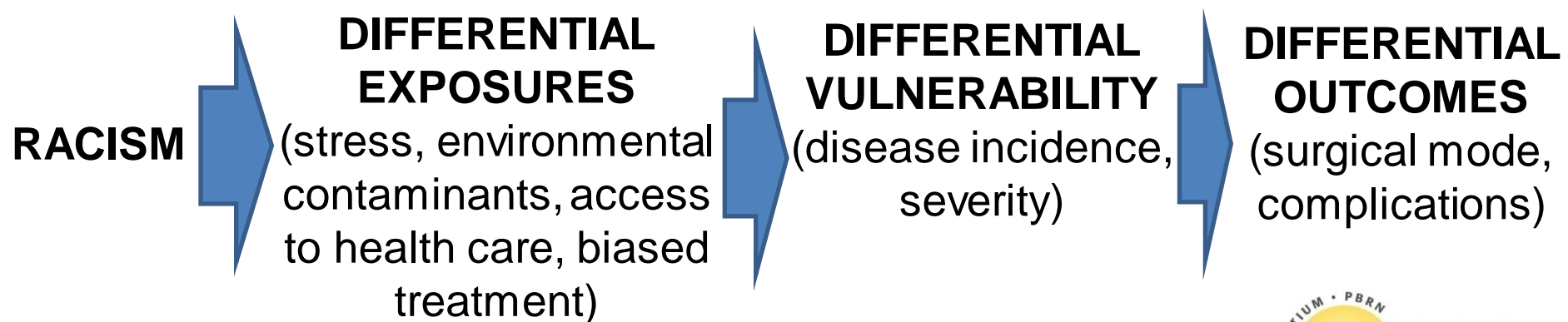
Approach

- Retrospective cohort using VA administrative data & chart abstraction
- Race identified in administrative data
- ICD-9s used to identify those undergoing hysterectomy for uterine fibroids & surgical mode (minimally invasive vs abdominal)
- Chart abstraction used for parity, surgical history, post-operative uterine weight on a subset (N~700)

Callegari, 2019; Katon, 2019

Key Findings

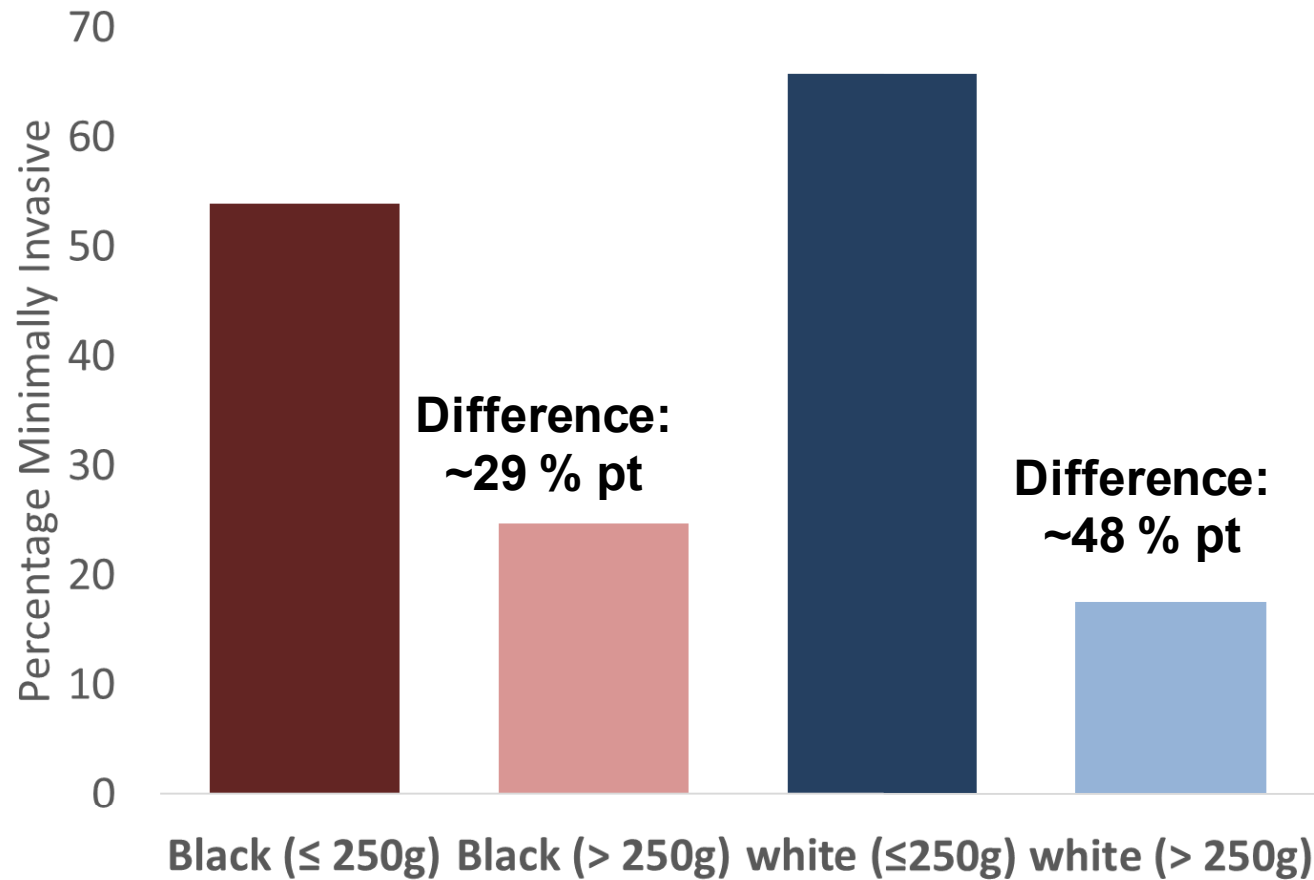
- Black veterans less likely than white veterans to have a minimally invasive hysterectomy (36% vs 57%)
- Difference cannot be explained by differential access
- Black veterans have larger median post-operative uterine weight compared w white veterans (276 g vs 140 g)



Callegari, 2019; Katon, 2019

Key Findings

Post-operative uterine weight is more weakly associated with minimally invasive hysterectomy among Black vs white veterans



Carey, 2020



Conclusions

- Despite enhanced access VA has racial inequities in uterine fibroid care
- Differences in receipt of minimally invasive hysterectomy cannot be wholly attributed to fibroid size & number
- Understanding racial inequities in uterine fibroid care requires understanding WHY Black veterans have larger fibroids, treatment preferences, & experiences with health care

Clinical and Policy Implications/Impact

- Access is necessary but not sufficient to ensure equitable health & health care
- Necessary to consider structural and social determinants of health (e.g., how structural racism and resulting policies drive inequities)
- As the number of women Veterans increases & VA gynecology practices expand equity must be considered as a key component of health care quality

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Understanding Racial Inequities in Fibroid Care for Veterans (URISE)

VA HSR&D Merit Award 19-154

Co-Principle Investigator: Lisa Callegari, MD, MPH

RESEARCH TEAM

Andrew Bossick, MPH

Cathea Carey, MPH

Shanise Owens, MA, MSc

Kristen E. Gray PhD, MS

Donna Washington, MD

Kemi Doll, MD, MDMS

Paul Hebert, PhD

Kristine Lynch, PhD

Erica Ma, BA

Erica Tartaglione, BS

Carolyn Gardella, MD, MPH

Rachel Smith, BA

OPERATIONAL PARTNERS

Amanda Johnson, MD

Director; Reproductive Health, VA Women's Health

Alicia Christy, MD, MHSCR

Deputy Director, Reproductive Health, VA Women's Health

Ernest Moy, MD, MPH

Executive Director, VA Office of Health Equity

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Discussion: *VA Gynecology Across the Life Course*



Lauren Beste, MD, MSc, FACP



Elisheva Danan, MD, MPH



Jodie G. Katon, PhD, MS



Alicia Y. Christy, MD, MHSCR
Discussant

Break!



Panel 3: *Reproductive Mental Health from Pregnancy to Menopause*



Jonathan G. Shaw, MD, MS



Aimee Kroll-Desrosiers, PhD



Carolyn Gibson, PhD, MPH



Laura J. Miller, MD
Discussant

Epidemiology of Mental Health and Pregnancy Outcomes in Veterans



Jonathan G. Shaw, MD, MS

Stanford University

VA Palo Alto, Women's Health Evaluation Initiative

Introduction

Growing number of Veterans of reproductive age

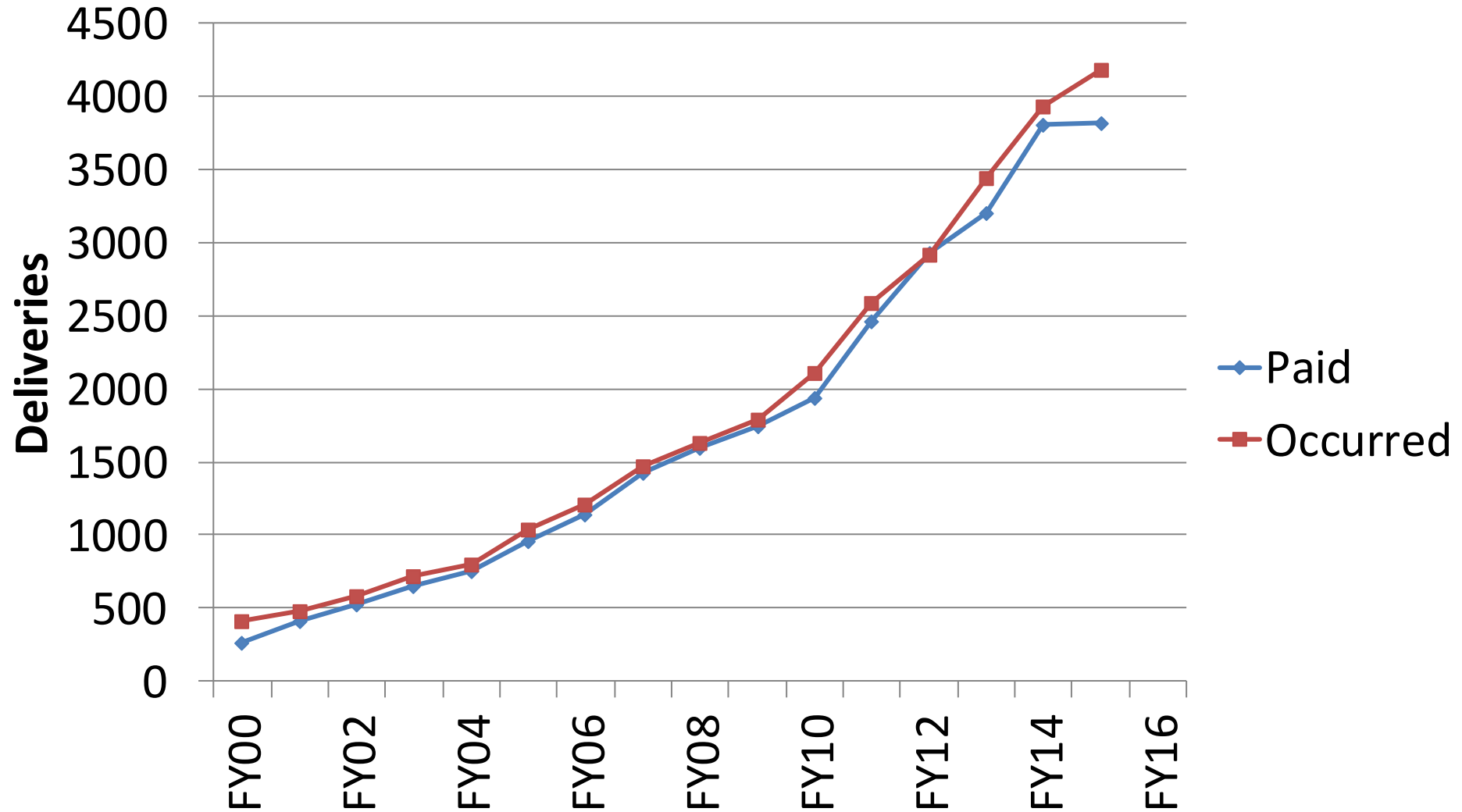
- Increasingly relying on VA for maternity care
- With high burden of mental health and trauma history
- Impact of PTSD/trauma on pregnancy poorly understood

Pregnancy care represents a transition between VA and non-VA community care, raising important questions of:

- Utilization and access?
- Outcomes?
- Quality and equality of care?

Growth in VA Covered Deliveries

VA Community Care Delivery Claims, FY00-FY15



Approach

- **Quantitative analysis of VA administrative data**
 - Delivery claims for non-VA care: Maternal outcomes
 - VA clinical data: mental health, medical dx, demographics
- **Early work (National): VA-covered, maternal data only**
 - N=16,000 deliveries, 2000-2012
 - Focus on PTSD impact on pregnancy/outcomes
- **Subsequent research (State): linked VA and California vital statistics to observe:**
 - N= 17,500 Veterans with births in California, 2000-2012
 - Infant outcomes
 - VA-enrollees using other coverage (e.g Medicaid, private)

Key Findings

Prevalence: Antepartum PTSD: 12%

Preterm Birth: 8%

- 1. PTSD associated with 35% increased risk of spontaneous preterm birth (aOR 1.35, $p < 0.001$), in VA**
 - More so than other MH associations
 - MST (military sexual trauma) prevalent, but not predictive
- 2. PTSD associated with more complex peripartum course**
 - Gestational Diabetes (6.7%) – 50% increased risk
 - Preeclampsia (6.2%) – 30% increased risk
 - Repeated pregnancy hospitalizations (aOR 1.5)
 - Prolonged (>4days) length of delivery stay (aOR 1.3)

Shaw, 2014; Shaw, 2017

Key Findings

Analysis of VA vs non-VA covered Veterans (California)

- **By 2012, Veterans almost as likely to rely on VA (14%) as Medicaid (15%) for maternity care**
- **VA-covered pregnancies show similar outcomes, with notable exceptions (vs private insured) :**
 - More preeclampsia (aOR 1.4)
 - Slightly more c-sections (aOR 1.2)
- **Veterans' Infants had higher NICU use (aOR 1.15)**
 - 13.7% of infants in NICU among VA-covered births

Conclusions

Mental health comorbidities have significant physiologic impacts on pregnancy, and as such:

- **VA covers a high-risk pregnant population**
- **VA pregnancies highly impacted by PTSD, and PTSD-affected births are more likely to:**
 - be medically complex (antepartum complications)
 - end in poor birth outcomes (preterm birth)
 - have long term health implications (maternal/infant)

Clinical and Policy Implications/Impact

Findings justifying increased focus on, and investment in:

- Maternal care coordination
- Perinatal mental health services
- Further study of maternal-fetal impacts of Veterans' MH

What next?

- Assess Veterans' access to high quality perinatal care
- Surveillance of SMM (severe maternal morbidity & mortality), with a health equity lens.
- Study how MH/PTSD treatment modifies birth outcomes?

Perinatal Mental Health and Healthcare Utilization among Veterans



Aimee Kroll-Desrosiers, PhD
VA Central Western Massachusetts

Introduction

- Perinatal depression is one of the most common complications of pregnancy
- Why study perinatal depression in women Veterans?

~25% of WVs
18-44 dx with
possible
depression

↑ use of VA
maternity
benefits

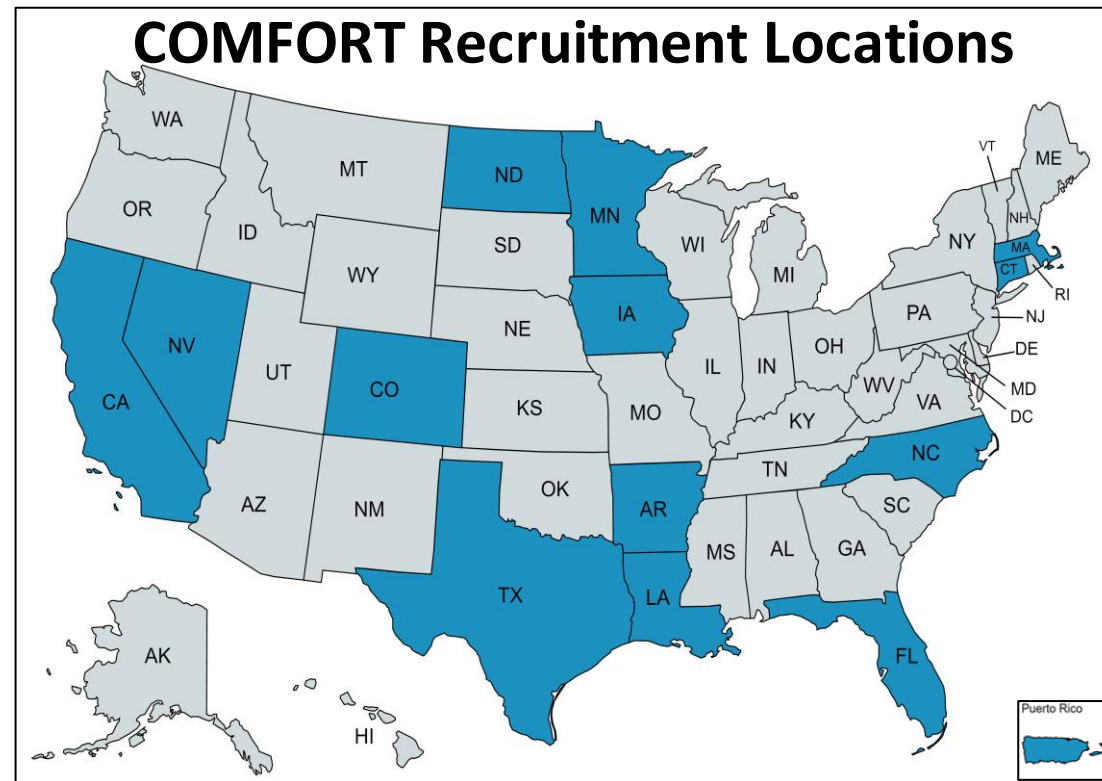
Gap in
perinatal MH
dx & MH care
utilization
research

Introduction

- Research questions:
 - What is the rate of depression symptoms in pregnant Veterans?
 - Are pregnant Veterans with depression symptoms utilizing VA mental health care?
 - What are the experiences of VA mental health providers with pregnant and postpartum Veterans?
 - Are Veterans being screened for depression during the perinatal period?

Approach

- Center for Maternal & Infant Outcomes Research in Translation (COMFORT) [HSR&D IIR 13-81, PI: Mattocks, 2015-2021]
- Mixed methods (prenatal & postpartum surveys, VA administrative/EHR data, qualitative interviews)
- 1,324 pregnancy & 988 postpartum interviews (as of 8/13/21)



Key Findings:

Pregnancy Mental Health & Mental Health Care Utilization

- Depression symptoms during pregnancy present in 28% of Veterans
 - Risk factors: unemployment, history of anxiety/depression, past active-duty status
 - Protective factor: partner support
- Veterans are utilizing VA mental health care during pregnancy
 - ~70% 1+ VA MH visit or antidepressant prescription during pregnancy
 - WVs self-reporting hx of depression more likely to receive MH care during pregnancy

Kroll-Desrosiers A. et al. Rates and Correlates of Depression Symptoms in a Sample of Pregnant Veterans Receiving Veterans Health Administration Care. Women's Health Issues. 2019 Jul - Aug;29(4):333-340.; Kroll-Desrosiers A. et al. Treatment and Management of Depression Symptoms in Pregnant Veterans: Varying Experiences of Mental Health Care in the Prenatal Period. Psychiatr Q. 2020 Jun;91(2):475-493.

Key Findings:

Experiences of VA Mental Health Providers with Perinatal Veterans

- Concern of symptomatic Veterans “slipping through the cracks”

“We know that there’s underdiagnosed & underreported (cases)...I think if we more routinely screened for depression, we would probably catch some cases we’re not aware of right now.”

Key Findings:

Experiences of VA Mental Health Providers with Perinatal Veterans

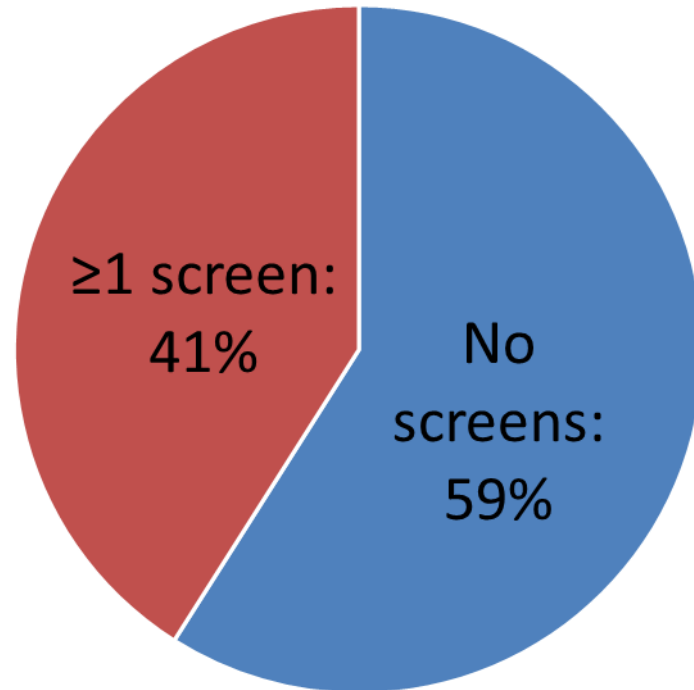
- Challenges with care delivery when there is no communication with obstetricians

“I don’t necessarily know what the OB is doing, because there’s not real good communication when the OB care is farmed out. And a lot of obstetricians are very uncomfortable with mental health medications, so I never know how comfortable they are with what I’m doing.”

Key Findings:

Perinatal Depression Screening in Administrative Records

Depression Screening during
Pregnancy or Postpartum:



- There were no differences in receipt of PCP or MH visits between Veterans screened vs. not screened during pregnancy

Conclusions

- Mental health care is available during the perinatal period; WVs engaged prior to pregnancy tend to stay engaged during pregnancy
- WVs without a previous diagnosis of depression may be less likely to receive needed MH care during pregnancy
- True estimate of perinatal depression screening is unknown

Clinical and Policy Implications/Impact

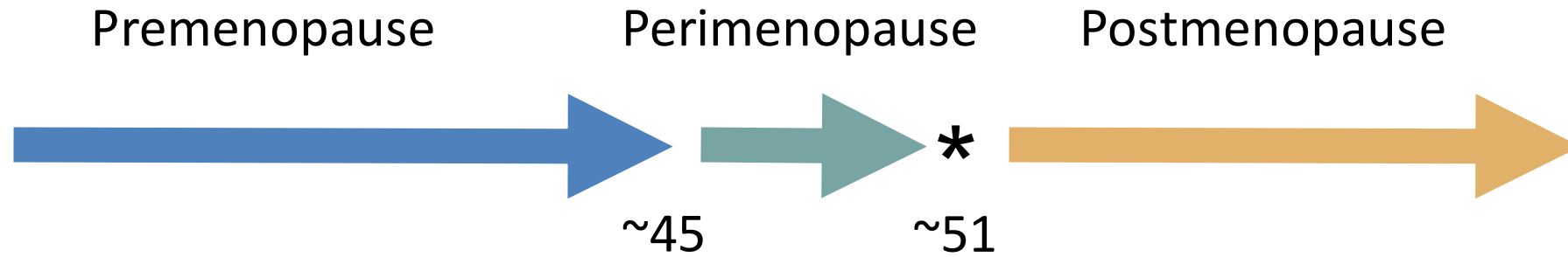
- Unclear if screening is happening as recommended or if results are not reflected in the data → potential point of intervention
- No data on provider efficacy in providing perinatal care
- Social support found to be protective of sx & WVs would like more (e.g., virtual support groups)
- More research on anxiety, PTSD, bipolar, etc. needed
- Preliminary work suggests Veteran & provider acceptability of increased MH provisions during pregnancy/postpartum

Thank you!

Women Veterans' Mental Health in the Menopause Transition

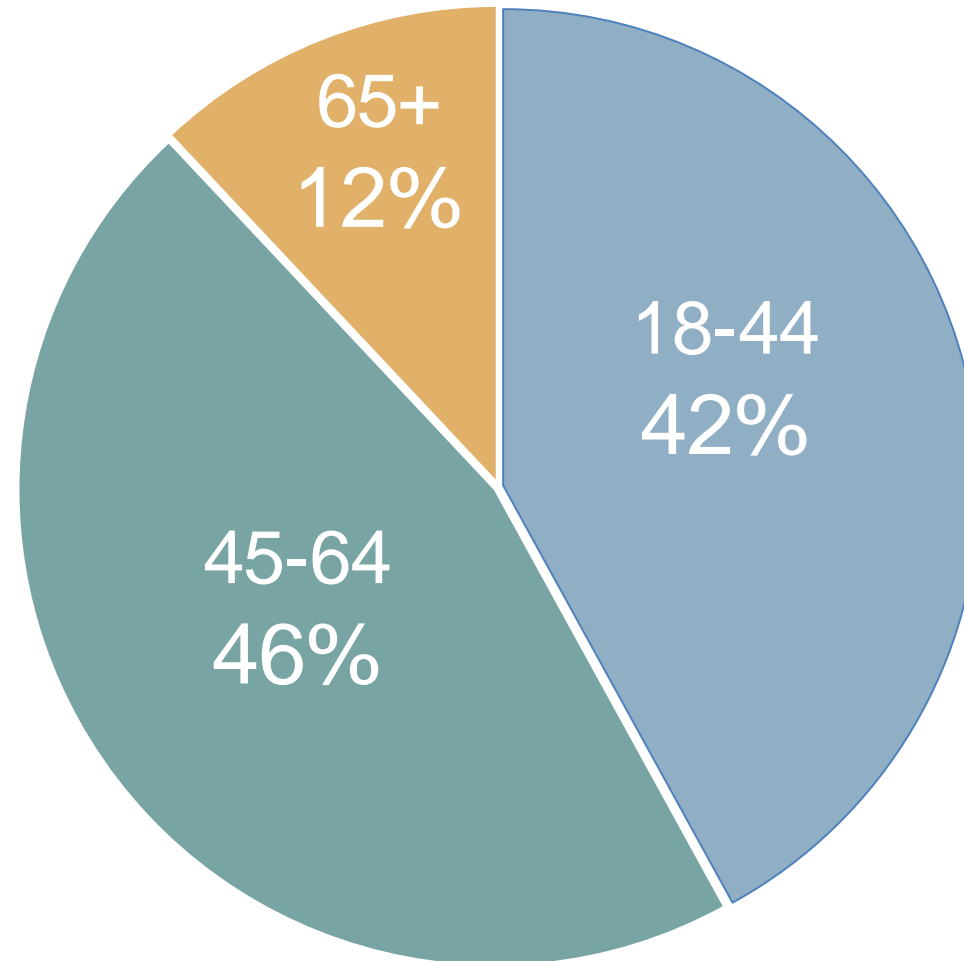


Carolyn Gibson, PhD, MPH
San Francisco VA Health Care System
University of California, San Francisco,
Department of Psychiatry & Behavioral Sciences

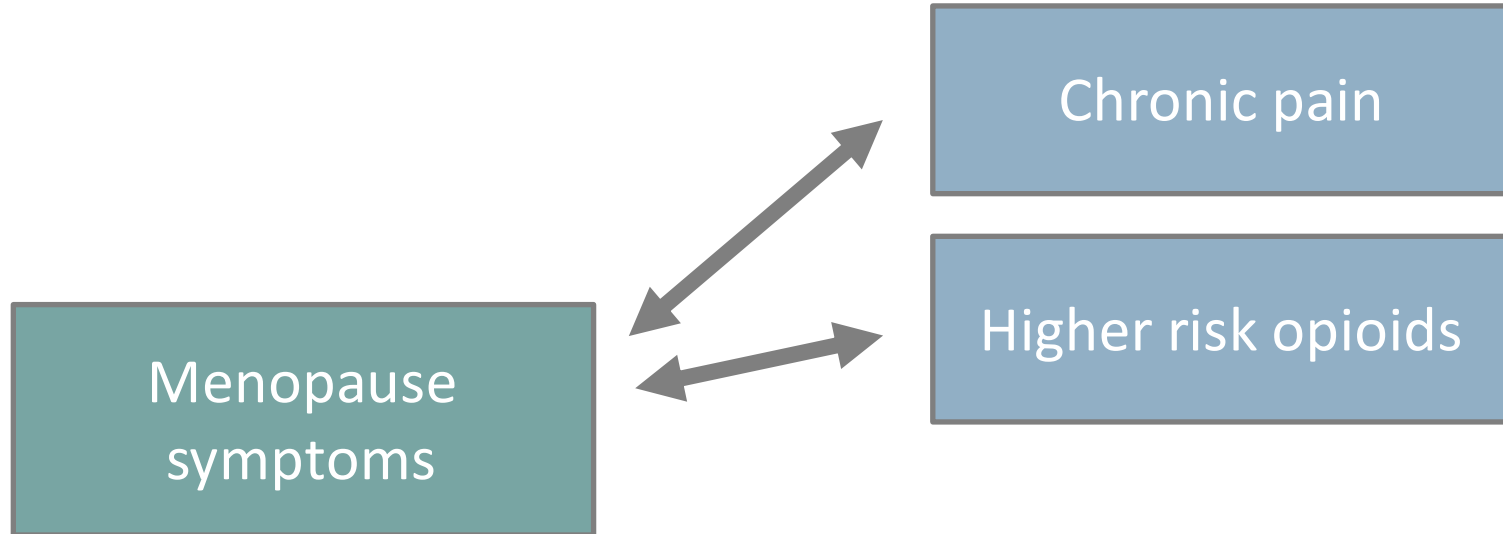


- Changes: Role, social, health and mental health (2-5x risk for major depressive episode in perimenopause)
- Common menopause symptoms: Hot flashes/night sweats, sleep, genitourinary symptoms, mood

Over half of women Veterans in VA may be peri- or postmenopausal

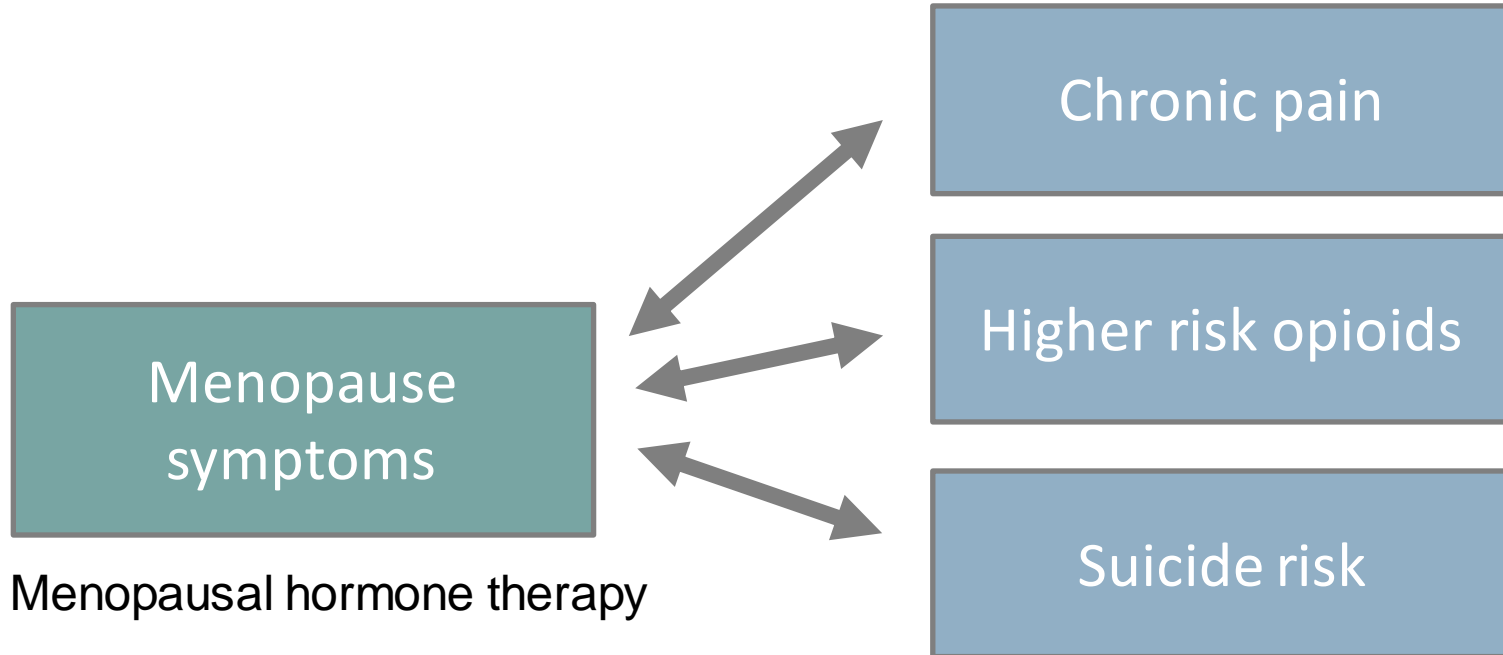


Are bothersome menopause symptoms associated with key mental health-related issues for women Veterans?



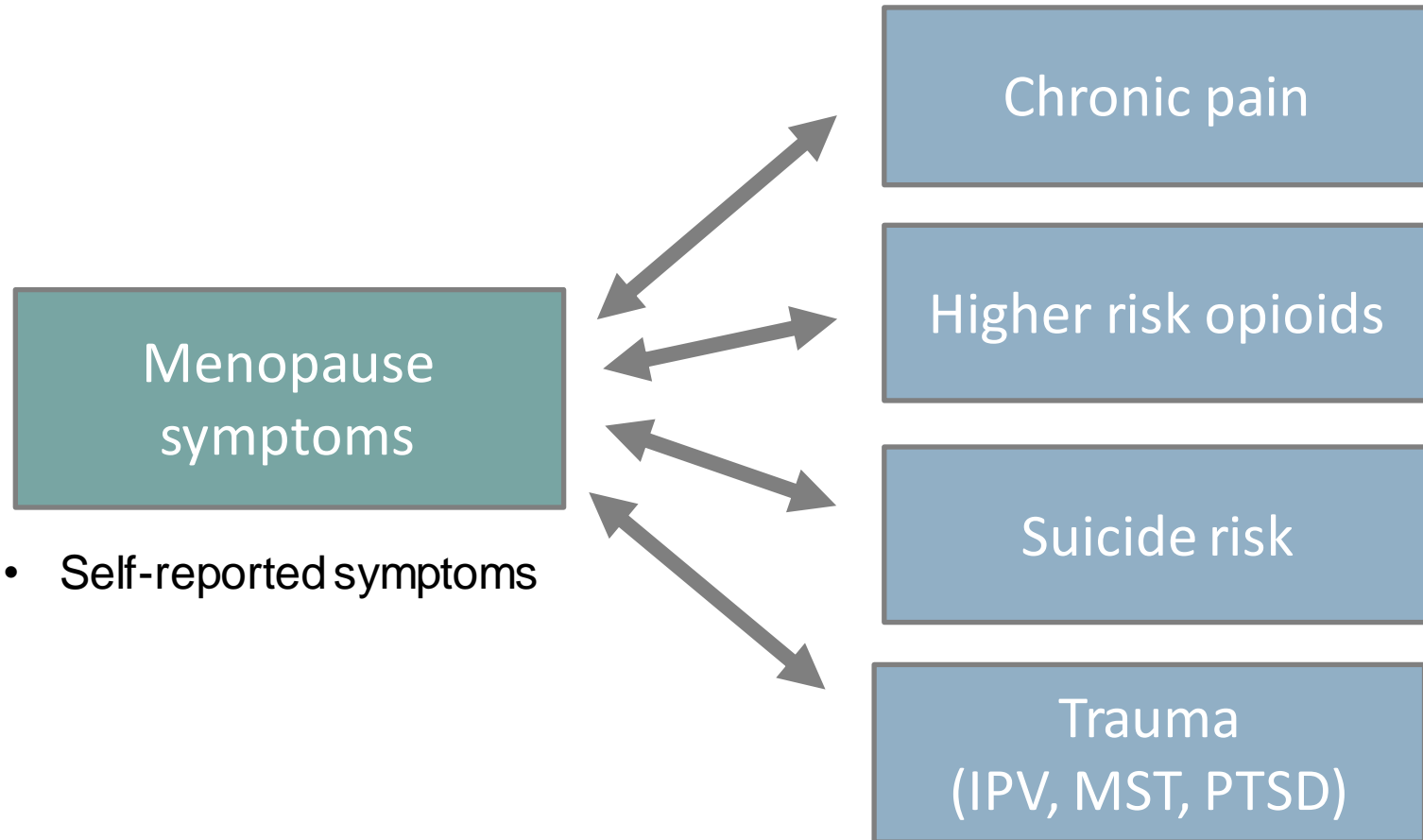
- ICD codes
- Menopausal hormone therapy

Are bothersome menopause symptoms associated with key mental health-related issues for women Veterans?

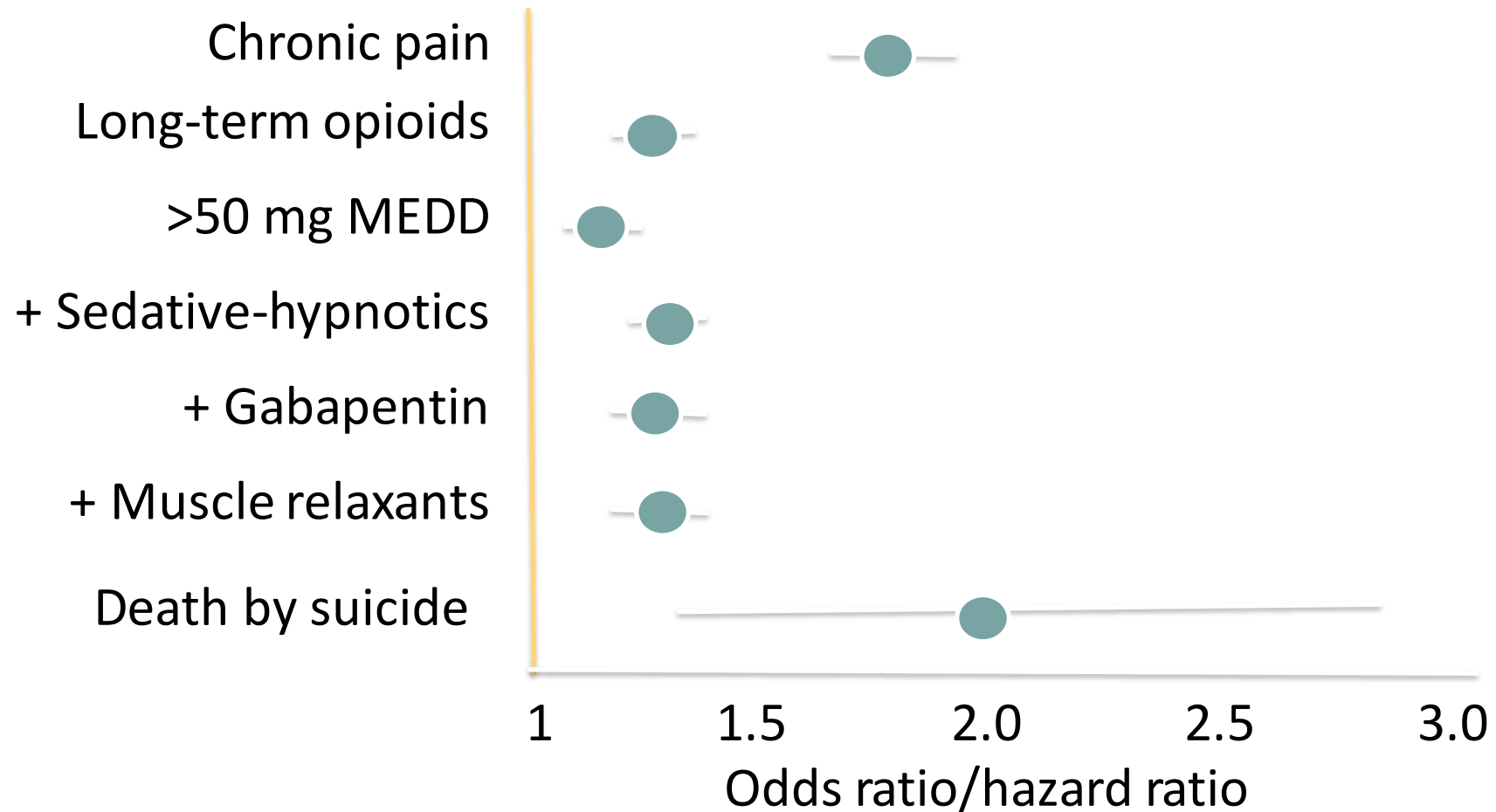


- Menopausal hormone therapy

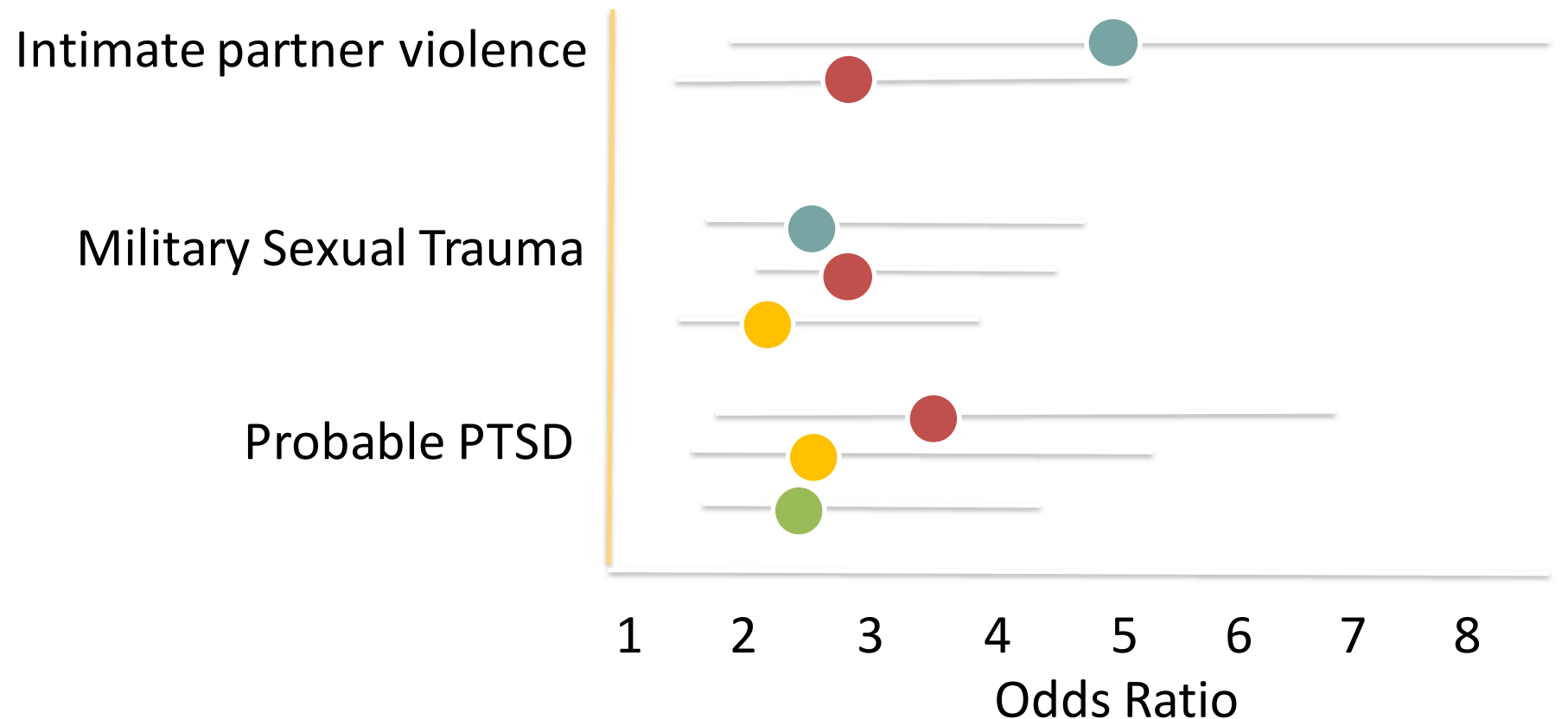
Are bothersome menopause symptoms associated with key mental health-related issues for women Veterans?



Menopause symptoms are associated with chronic pain, opioids, and suicide



Menopause symptoms are associated with trauma and PTSD



- Vaginal symptoms (69%)
- Hot flashes/night sweats (54%)
- Insomnia (36%)
- Urinary symptoms (44%)

Conclusions

- Menopausal hormone therapy/bothersome menopause symptoms may indicate complex comorbidity
- Menopause symptoms are common and likely under-recognized in health care setting
- Greater burden of menopause symptoms in women with trauma history and mental health comorbidity

Clinical and Policy Implications/Impact

- Comprehensive care includes recognition of the role of menopause/symptoms in experience and management of other conditions (e.g. pain)
- We need integrated approaches to comprehensive, trauma-informed, menopause-related care

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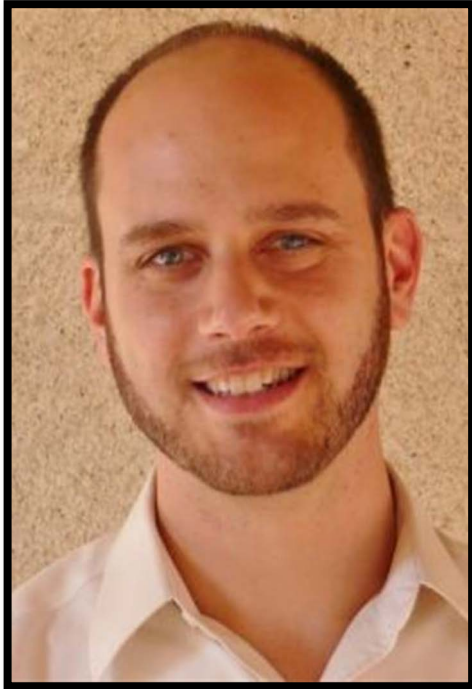
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Measurement Science QUERI (Seal)

CSR&D I01 CX001119 (Byers)

Discussion: *Reproductive Mental Health from Pregnancy to Menopause*



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Carolyn Gibson, PhD, MPH



Laura J. Miller, MD
Discussant

Panel 4: *Where Do We Go from Here?* *Setting a VA Reproductive Health Research Agenda*



Amanda M. Johnson, MD



Laurie Zephyrin, MD, MPH, MBA



Kayla M. Williams, MA



Kara Zivin, PhD, MS, MA, MFA



Elizabeth W. Patton, MD
Moderator

Please share in the Q&A panel/box

Based on your expertise, and from what you have heard today, **what are 1-2 key priorities for VA reproductive health research in the next 3-5 years?**

Gratitude

- ***Thank you to:***

- Our wonderful speakers, discussants, and panelists
- VA Women's Health Research Network, including Dr. Becky Yano (Consortium Director) and Dr. Adriana Rodriguez (Consortium Program Manager)
- VA HSR&D: Dr. David Atkins, Ms. Heidi Schlueter and CIDER team
- The Office of Women's Health

- ***Get involved!***

- Email Jodie.Katon@va.gov and Elizabeth.Patton@va.gov to join the VA WHRN Reproductive Health Research Work Group.
- Subscribe to the VA WHRN Listserv here: https://www.research.va.gov/programs/womens_health/listserv.cfm