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FEDERAL HEALTH CARE

DATA TRENDS 2026



A graphic showing the silhouettes of several soldiers in full combat gear, including helmets and rifles, standing in a line. Behind them is a large, stylized American flag with a textured, painterly appearance. The background is a mix of blue, white, and red.

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The following abbreviations are used frequently throughout this issue:

CVD, cardiovascular disease; DoD, Department of Defense; EHR, electronic health record; PTSD, posttraumatic stress disorder; VA, Veterans Affairs; VHA, Veterans Health Administration



VA Health at a Glance

A population-level primary care tool, the Preventive Health Inventory, has helped identify, reengage, and improve outcomes for veterans whose chronic care was interrupted by the pandemic.¹ Another study suggests that, beyond clinical tools, culturally attuned clinicians and camaraderie with fellow veterans are key factors in choosing VA care, especially for younger patients.²

However, substantial functional limitations and unmet long-term care needs remain among older veterans, with the highest social and mental health vulnerabilities in veterans who have both activities of daily living impairments and a lack of sufficient help.³ Such vulnerabilities are further complicated by the changing landscape of care delivery. A recent national survey of primary care clinicians found that, as telehealth expands, higher secure message volumes have been independently associated with greater staff burnout.⁴

Camaraderie and Veterans' Healthcare Choices²



A survey study of VHA users found that camaraderie with other veterans is an important factor in healthcare choice, particularly among younger veterans.

Sample and Demographics



652 veterans using VHA care



74.5% male

The survey examined...



Conventional factors

What influences veterans' healthcare choices, such as quality and access



Cultural factors

Camaraderie, or the opportunity to be around other veterans; clinician cultural competency (ie, understanding veterans' problems/needs); and ability to maintain a connection to military experience



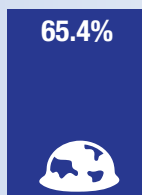
Satisfaction
with VHA care

Camaraderie Importance by Age

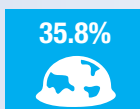
Percent of veterans who reported valuing camaraderie



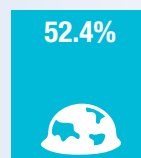
18-34



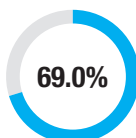
35-64



≥ 65



Overall



would choose VA over private care if cost and distance were equal.



2.24x

Veterans who valued camaraderie were **2.24x** more likely to choose VHA care.

Bridging the Chronic Disease Care Gap¹

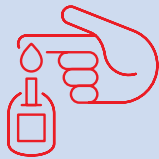


COVID-19 disrupted care through missed chronic healthcare appointments and testing. To identify and reengage patients with delayed care, VHA implemented the Preventive Health Inventory (PHI) — a multicomponent primary care tool that streamlines care coordination by integrating a national quality-measure dashboard with nurse-led telehealth visits and standardized EHR templates focusing on diabetes, hypertension, cancer screening, and mental health.

Primary Care Quality and Utilization Seen With PHI

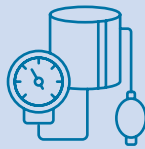
National VHA primary care rollout; high- vs low-PHI-use clinics compared across 216 clinics and 829,527 veterans in matched cohorts followed during 2021-2022.

Better Diabetes and Blood Pressure Control



Poor diabetes control

↓ by ~ 2.9%
in PHI



Adequate blood pressure control

↑ by ~ 4.0%
in PHI

Preventable Emergency Department and Hospital Visits



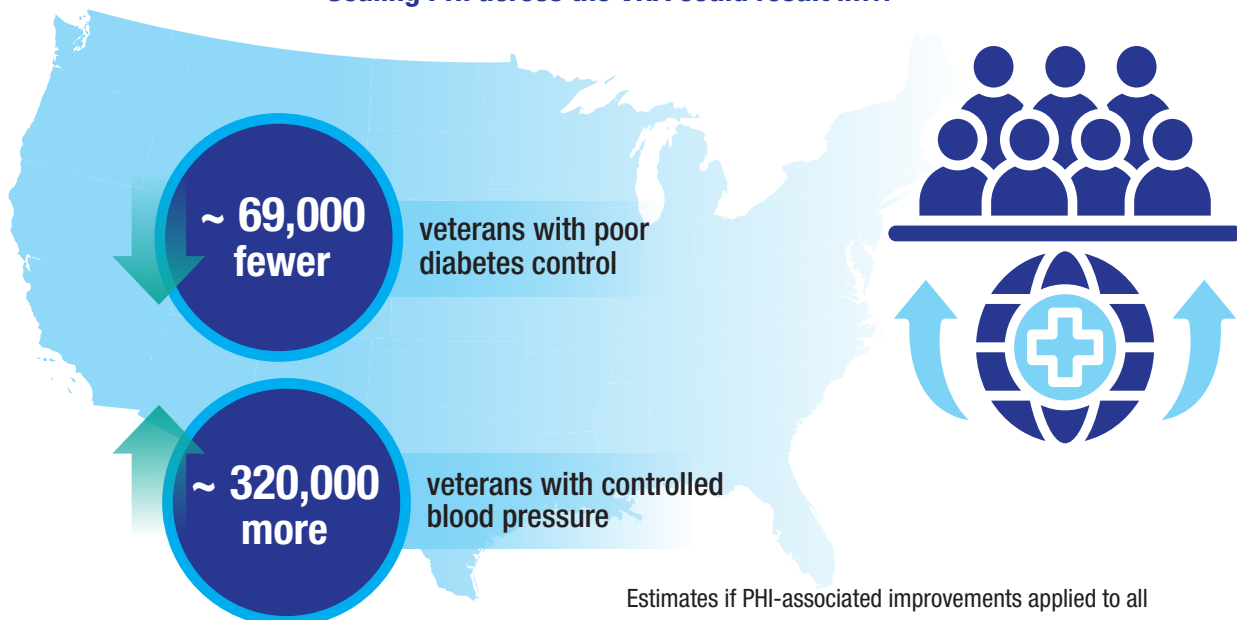
No significant differences in preventable emergency department visits or hospitalizations for ambulatory care-sensitive conditions.

Increased Primary Care to Re-Engage Veterans



PHI was associated with
+310 outpatient visits per
1000 veterans

Scaling PHI across the VHA could result in...



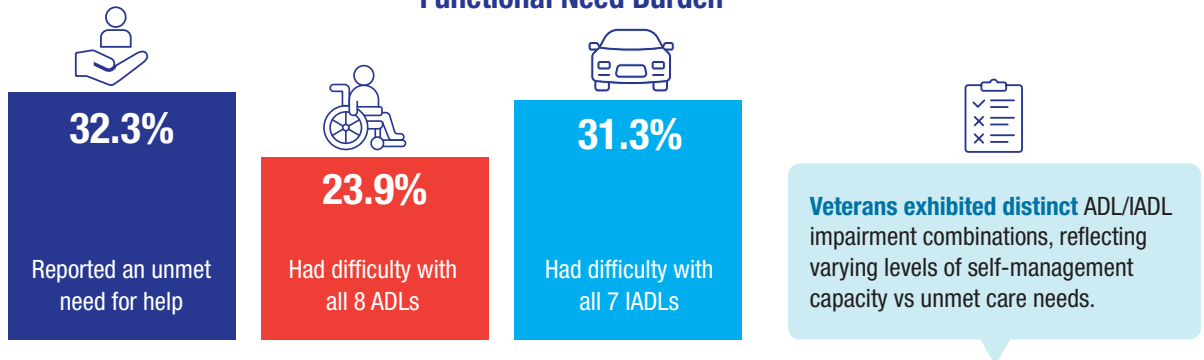
Estimates if PHI-associated improvements applied to all ~ 9.2 million veterans in VHA care.

Unmet Long-Term Care Needs for Older Veterans³



A cross-sectional analysis of 7424 veterans aged 65+ from the HERO CARE Survey revealed that nearly one-third of veterans with functional impairments have unmet long-term care needs, demonstrating substantial social and mental health vulnerabilities.

Functional Need Burden



Activities of daily living (ADLs): eating, bathing, toileting, dressing, getting in or out of bed, managing incontinence, walking across a small room, and brushing teeth. **Instrumental activities of daily living (IADLs):** Cooking, taking medications, using the telephone, transportation, grocery shopping, housework, handling money.

52.5%

of the study population have at least one ADL or IADL limitation. Veterans with both ADLs and IADLs experience:



Greater prevalence of food insecurity



Missed medical appointments



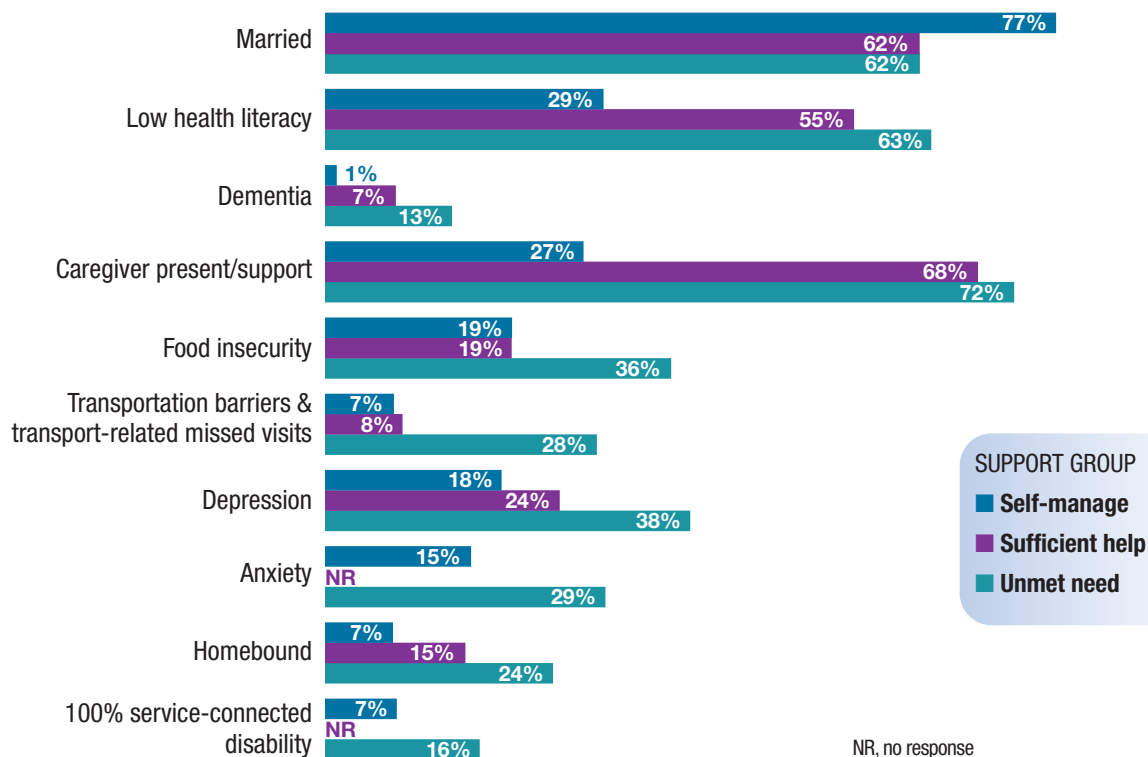
Low health literacy



Depression

Clinical and Social Characteristics by Support Status (Older Veterans)

Older veterans show wide heterogeneity in functional impairment, with sharp rises in clinical and social vulnerability as ADL/IADL burden and unmet need increase.



VHA Primary Care Burnout and Telehealth Workload⁴



Among ~ 17K VHA primary care clinicians, burnout rose sharply from 2020 to 2023 as telehealth expanded, with secure messages — not video visits — emerging as a key workload driver.

Burnout not evenly distributed

Higher odds among:



Female vs male clinicians



Clinicians aged < 60
(middle-aged, 40–59 years)



Mid-career clinicians
(2–20 years tenure)



Non-Hispanic White vs other race
and ethnicity groups

Burnout climbed from 2020 to 2023

% PCPs reporting burnout



Video visit volume increased sharply

Median video visits per 1000 patients increased from **15.9 to 227.6** across VA healthcare systems.



Secure messages increased

Median secure messages per 1000 patients increased from **23.4 to 35.3**.



Which telehealth workloads relate to burnout?

Video visits

Video visit volume **was not** significantly associated with burnout after adjusting for other factors.

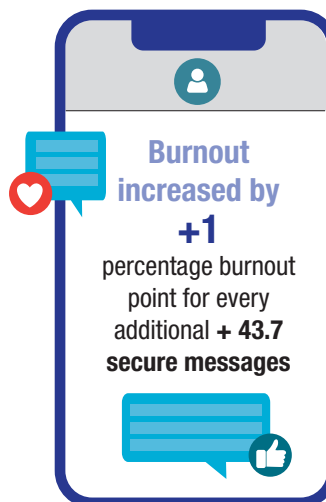


Secure messages

Higher secure message volumes **were** independently associated with higher burnout.



Messaging workload effect





Cardiology

An estimated 50% of the 9 million veterans who receive care in the VHA have at least one cardiovascular disease, compared with 37% of civilians.¹ Overall, VA cardiovascular care often matches or exceeds community performance, with greater adherence to guideline recommended therapies and robust systems for monitoring, device management, and telecardiology that especially benefit rural and higher risk veterans.¹ Short-term mortality after diagnostic coronary angiography has been shown to be higher in community settings than in VHA facilities, underscoring the importance of coordinated transitions and follow up when care occurs outside the VA.² VA-based clinical management has had its challenges, such as poor early follow up after heart failure (HF) hospitalization, with many veterans seen later than guideline recommendations and with notable differences by sex, race, clinical profile, and facility.³ However, targeted VA quality improvement programs have been shown to improve a variety of intermediate outcomes, including strengthening cholesterol management, medication adherence, and guideline aligned therapy for atherosclerotic cardiovascular disease (ASCVD) and hypertension — although longer follow-up is needed to confirm effects on major clinical events.⁴

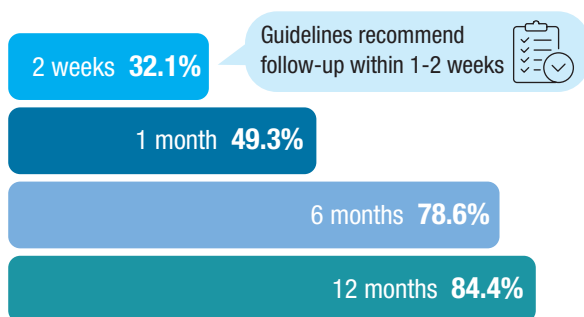
Follow-Up Care After Heart Failure Discharge From VHA³



Researchers analyzed EHR data for a cohort of > 10,000 veterans with > 100,000 HF-related hospitalizations in acute care VA hospitals (2018-2022), with follow up through 2023. One-year mortality risk at discharge was calculated with the MAGGIC HF risk model, which estimates risk of death over about 1-3 years.

Time to Cardiology Follow-Up Post-HF Hospitalization

Based on ≥ 1 year survivors



Probability of Follow-Up

By MAGGIC risk quintile

Follow-Up Rates	Risk Quintile by Follow-Up Time	
	Lowest Risk	Highest Risk
2-Week Follow-Up	30%	34%
1-Month Follow-Up	47%	51%

Based on ≥ 1 year survivors

Who is more or less likely to be seen?



More Likely

- ↑ Patients with HFrEF
- ↑ HF was primary admission diagnosis



Less Likely

- ↓ Black/unrecorded ethnicity
- ↓ Women



1-month follow-up rates ranged from **5% to 69% across VA facilities**, with a ~ **2-fold variation** in the likelihood of receiving timely follow-up between similar patients at two randomly selected facilities.

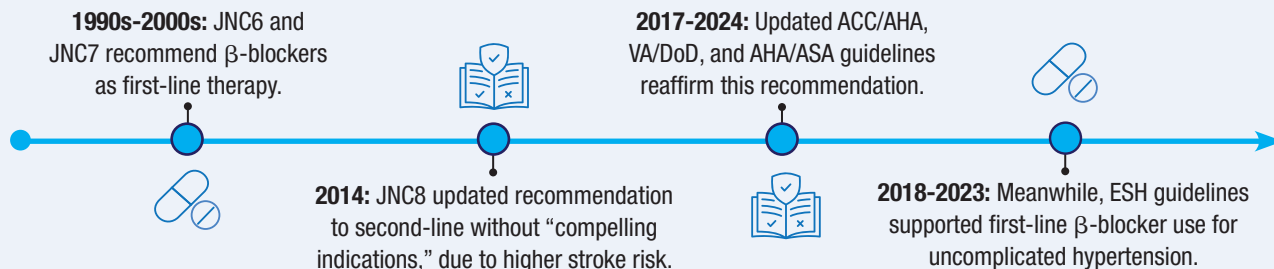
HFrEF, heart failure with reduced ejection fraction; MAGGIC score, Meta-Analysis Global Group in Chronic Heart Failure risk score.

β-Blocker Prescribing for Veterans With Hypertension⁵

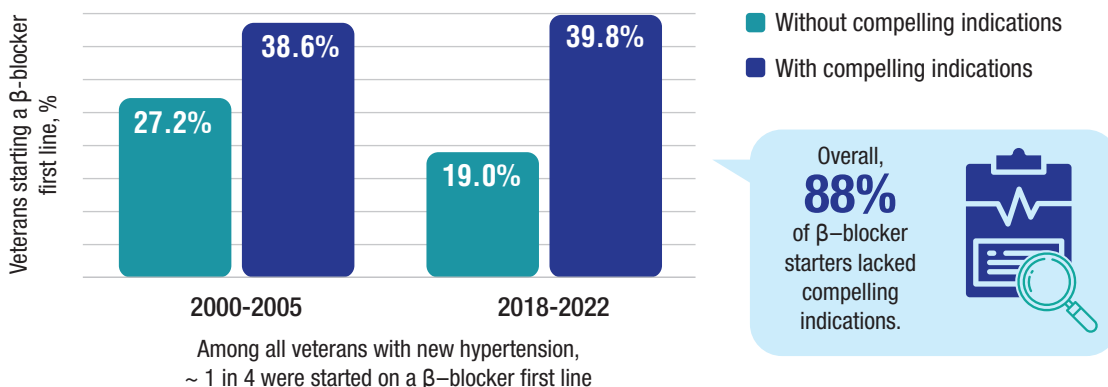


In a national VA cohort, about 3.1 million veterans initiated antihypertensive therapy over a 23-year period. Researchers found that β-blockers are still commonly chosen as first-line therapy for new hypertension, despite guidelines limiting them to patients with specific compelling indications.

Guideline Recommendations

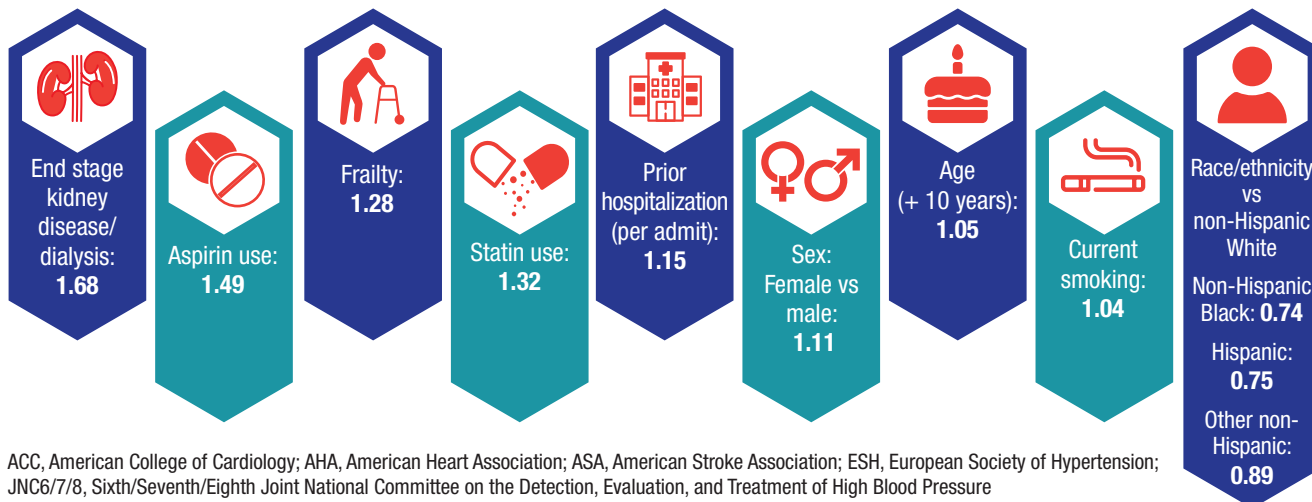


First-Line β-Blocker Initiation Among Veterans With New Hypertension, by *Compelling Indication Status, 2000–2005 vs 2018–2022



*Compelling indications: Aortic aneurysm and/or disease, angina, atrial fibrillation and/or arrhythmia, chronic liver disease and/or cirrhosis, HFrEF, myocardial infarction, coronary revascularization

Likelihood for β-Blocker Initiation, Prevalence Ratios in patients without compelling indications



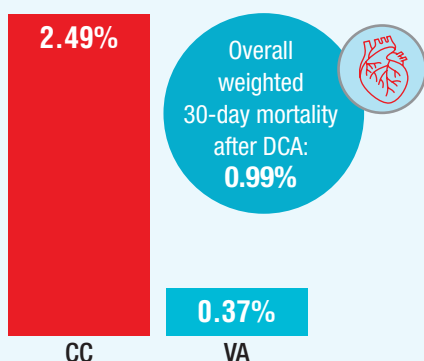
ACC, American College of Cardiology; AHA, American Heart Association; ASA, American Stroke Association; ESH, European Society of Hypertension; JNC6/7/8, Sixth/Seventh/Eighth Joint National Committee on the Detection, Evaluation, and Treatment of High Blood Pressure

Short-Term Mortality After Diagnostic Coronary Angiography²



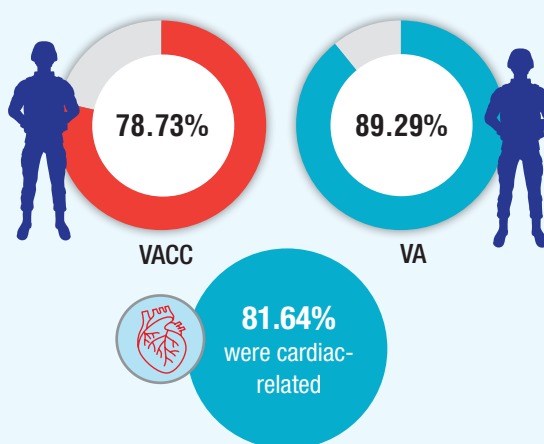
A study compared short-term mortality after diagnostic coronary angiography (DCA) in VA facilities and in VA community care (CC) settings. Patients were matched by baseline characteristics: age, race, rurality, distance to nearest VA primary care site, history of ischemic heart disease, history of valvular disease, procedure fiscal year, insurance status, and Elixhauser Comorbidity Index.

30-Day Mortality After DCA



Cardiac-Related Deaths Within 30 Days

Among all deaths within 30 days



Increased 30-Day Mortality With VA Community Care

Compared to VA settings; Based on adjusted odds ratios



All-cause:
6.9x



Cardiac-related:
6.1x



Non-cardiac-related:
13.5x



With HF:
6.6x



Without HF:
7.2x



With valvular
disease: **7.5x**



Without valvular
disease: **6.7x**

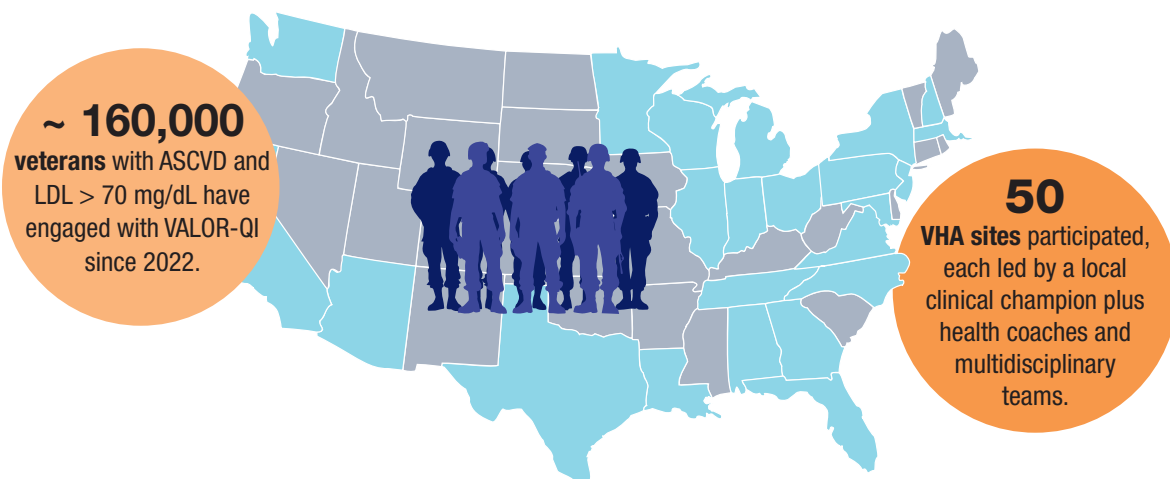


30-day mortality after DCA was low overall, but higher for veterans whose procedures were performed in CC compared with VA. This finding was true across all-cause, cardiac-related, and non-cardiac-related deaths, including patients with HF or valvular disease.

Improving LDL Cholesterol in Veterans With ASCVD⁴



VALOR-QI (Veterans Affairs Lipid Optimization Reimagined-Quality Improvement) — a collaboration between the VHA and the American Heart Association — is a program designed to address cardiovascular health barriers and actively reach at-risk veterans through integrating healthcare coaches, multidisciplinary teams, targeted outreach, optimized prescribing, and patient enhanced education.



Barriers and Intervention Model



Poor medication adherence



Gaps in cholesterol education and lifestyle support for veterans and clinicians



VA staffing and workflow constraints



Why LDL Matters



- ✓ Heart disease and stroke are leading causes of death among veterans. In a contemporary VA cohort undergoing diagnostic coronary angiography, about **two-thirds** of veterans with ASCVD had elevated LDL prior to the angiographic procedure.
- ✓ Lowering LDL to **< 70 mg/dL** reduces chances of another heart attack or stroke and may reduce health care costs.



After 24 months...

34%
of veterans with
ASCVD and LDL > 70
lowered LDL to
< 70 mg/dL.

Equating to a **32% increase** in those
meeting this LDL goal

Average LDL reduction: **15.9 mg/dL**



*Among veterans aged
≥ 75 years, 36% achieved
LDL < 70 mg/dL.*

Medication Use and Adherence



Cholesterol-lowering
medication use

78%

88%

Medication
adherence

65%

77%

■ Baseline

■ After Intervention

Quality and Access: VHA vs Community Cardiovascular Care¹



The VHA remains the benchmark for high-quality cardiovascular care. CHOICE and MISSION Acts expanded community care primarily for convenience and travel distance, but VHA care continues to set the standard. Additional programs focus on maintaining quality, safety, and equity, particularly for rural veterans.

Eligibility for Community Care



Service not
offered at VHA



Wait time > 28 days for
needed specialty care

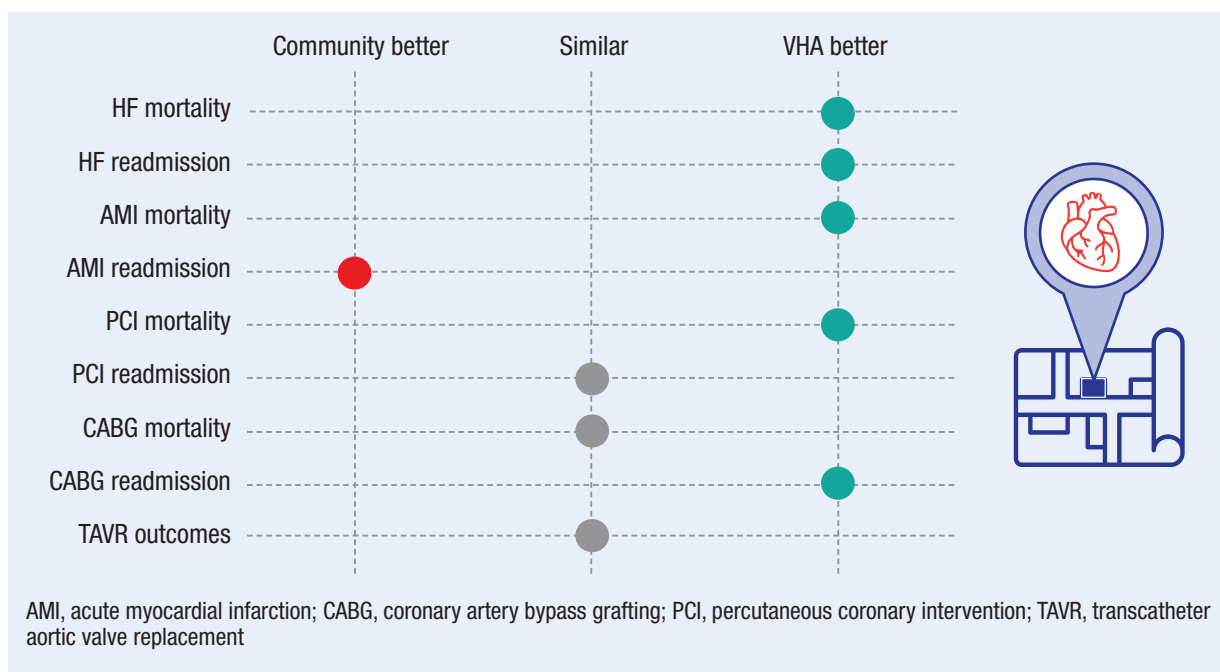


Travel distance > 60 minutes
for specialty care



Veterans must also meet basic VA enrollment authorization requirements.

VHA vs Community Cardiovascular Outcomes



Risk Factor Management



Statin use after AMI/PCI 71%-75% in VHA; similar to Medicare



Diabetes and hypertension: better medication and blood pressure control in VHA



More veterans reach LDL < 70 mg/dL in VHA

Access and Wait Times



Wait times: VHA often shorter than community



Rural veterans are more likely to use community care, but **37%** still wait > 30 days for some services.

CHOICE Act, Veterans Access, Choice, and Accountability; MISSION Act, Veterans Affairs Maintaining Systems and Strengthening Integrated Outside Networks

ASCVD Risk Prediction for Veterans⁶



A study evaluated how well the Predicting Risk of Cardiovascular Disease Events (PREVENT) model predicts 10-year ASCVD risk compared with the prior gold standard — pooled cohort equations (PCE) — in a cohort of about 2.5 million veterans in the VHA.

Baseline Risk Profile



Median BMI:
29.4 kg/m²



SBP:
130 mm Hg



LDL-C:
106 mg/dL



eGFR:
85.6 mL/min/1.73 m²



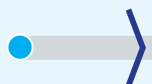
Antihypertensive use:
49.1%



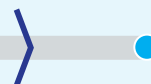
Lipid-lowering therapy:
35.8%

eGFR, estimated glomerular filtration rate; LDL-C, low-density lipoprotein cholesterol; SBP, systolic blood pressure

ASCVD Outcomes



10-year follow-up: **212,942** ASCVD events
(0.9% per year)



Risk Prediction Comparison

PCE



Predicted 10-Year Risk
13.1%



Discrimination (C Index)
0.672



Calibration Slope
0.36

Overestimates risk in modern VA populations. Veterans' observed event rates were much lower than PCE predictions

PREVENT



Predicted 10-Year Risk
6.6%



Discrimination (C Index)
0.696

Statistically significantly higher discrimination vs PCE at sorting high-risk and low-risk patients.



Calibration Slope
1.04

Excellent calibration; predicted risk closely tracks observed ASCVD events

PREVENT vs PCE: What's New?

PCE Inputs (legacy)

- Age, sex, race
- Total cholesterol, HDL-C
- SBP, BP treatment
- Diabetes
- Smoking

Additional PREVENT Inputs

- BMI
- Kidney function (eGFR; may include albuminuria in full model)
- Contemporary cohorts with broader CVD endpoints and more diverse populations, improving calibration in modern practice

Key Takeaways: PREVENT

- ✓ More accurate in modern veterans
- ✓ Better calibration to support shared decision making
- ✓ Incorporates kidney function and BMI, capturing cardiovascular–kidney–metabolic risk more completely than PCE



Mental Health

Veteran suicide remains a critical public health concern.^{1,2} In 2023, approximately 6400 veterans died from suicide.¹ About half of these veterans had previously reported pain and sleep-related issues.¹ A recent study identified access to firearms as a clear risk factor for suicide, while other factors — including high rates of adverse childhood experiences and moral injury — were linked to increased suicidal ideation and behaviors.²⁻⁴

PTSD, depression, alcohol use disorder (AUD), bulimia nervosa, and binge eating disorder are common mental health conditions among veterans.⁵⁻⁸ Psychosocial factors, including loneliness, drive higher PTSD prevalence in younger veterans, while modifiable social needs, such as housing stability, affect mental health outcomes.^{5,9}



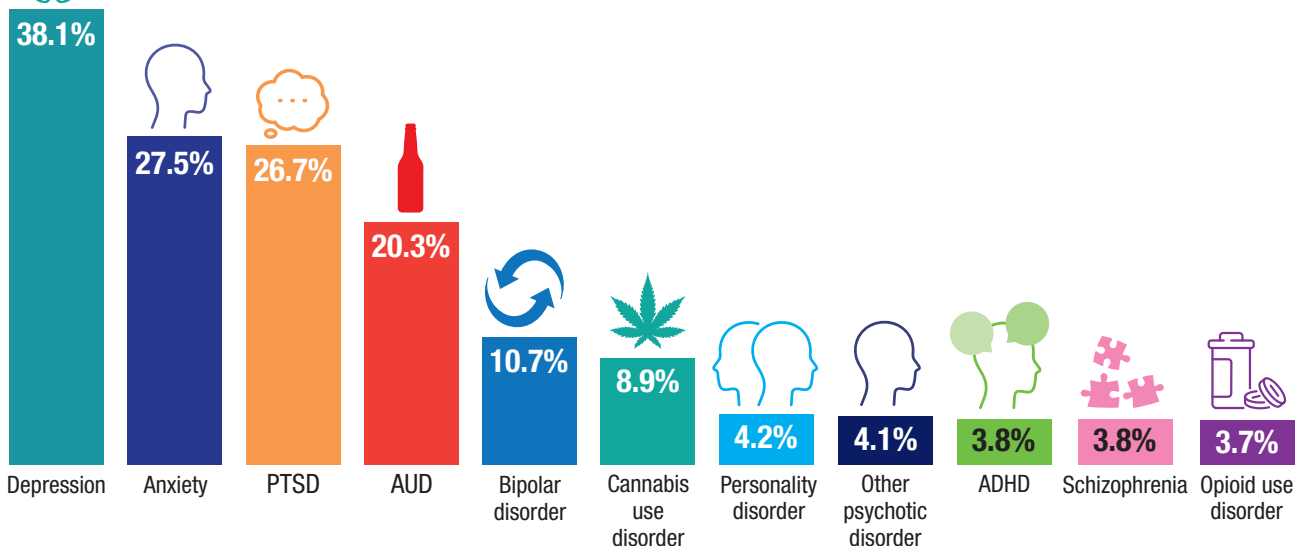
If you or someone you know is having thoughts of suicide, **call or text 988 to reach out to the National Suicide Prevention Lifeline, or contact the Veterans Crisis Line:** www.veteranscrisisline.net.



Veteran Suicide Statistics for 2023¹



Prevalence of Mental Health Diagnoses in 2023



Comprehensive Suicide Risk Evaluation in the VHA^{1,2}



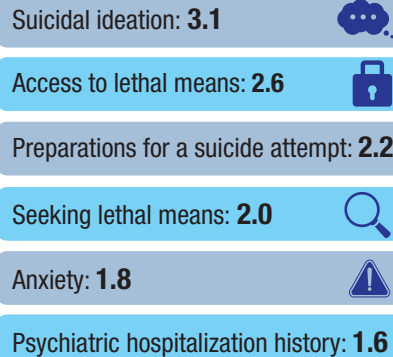
A study of over 260,000 comprehensive suicide risk evaluation (CSRE) reports from more than 150,000 VHA patients compared responses to mortality data. CSREs included questions about suicidal ideation and behavior, warning signs, and risk factors, and are typically administered only to high-risk veterans. Because of this selection bias, suicide rate data from this group may far exceed the overall veteran suicide rate of 33.9 to 35.2 per 100,000.

Displayed as hazard ratios



Risk Factors for Acute Suicide

Defined as within 30 days of CSRE



Risk Factors for Chronic Suicide

Defined as within 365 days of CSRE



Factors such as anger, prior trauma, and recent transition from military service showed an inverse association with suicide risk, which is inconsistent with previous data. These results could may have been influenced by treatment received after the CSRE.

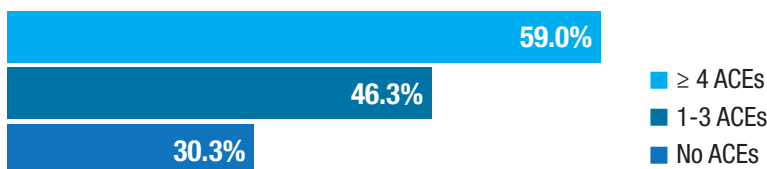
Adverse Childhood Experiences and Suicide³



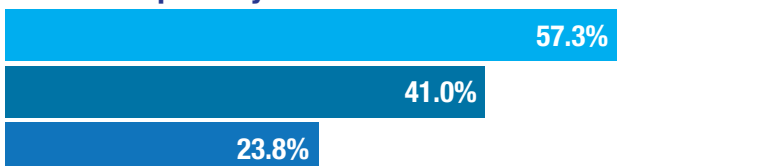
The relationship between adverse childhood experiences (ACEs) and suicidal ideation and behaviors was analyzed among over 3500 veterans who completed ACE screens from 2018 to 2023. ACEs were determined through the Adverse Childhood Experience Scale, while suicidal ideations and behaviors were measured by the Columbia Suicide Severity Rating Scale.

Proportion of participants with ideation or behavior

Suicidal Ideation



Suicidal Preparatory Behaviors



Veterans with higher ACEs scores were...

13% more likely to have suicidal ideation in the past 5 years

18% more likely to engage in lifetime suicide preparatory behaviors



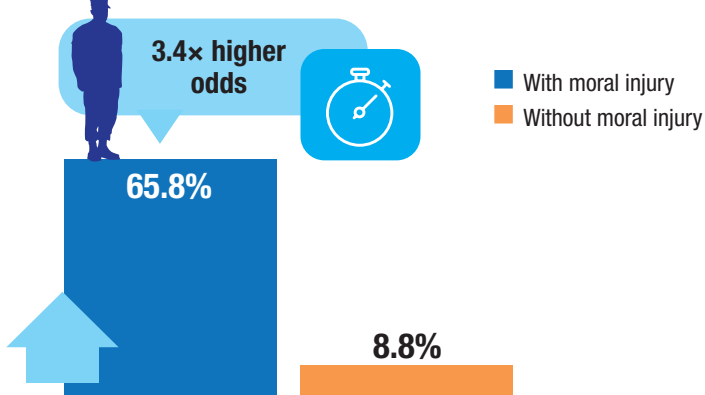
Despite the demonstrated link between ACEs and suicidal ideation and behaviors, few VHA clinics conduct ACE screens, with 32.4% of all ACE screens in this study being administered at one outpatient clinic. The most commonly reported ACEs in veterans were separation from a parent, emotional abuse, living with a problem drinker, and physical abuse.

Moral Injury and Suicidality⁴

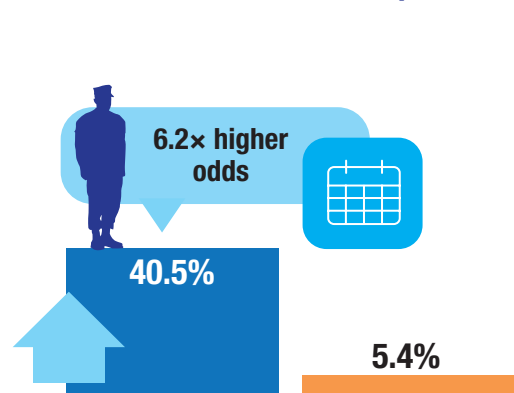


Moral injury is the psychological distress that can result from being involved in, witnessing, or failing to prevent a situation that violates one's core moral beliefs (eg, inadvertent civilian harm) and can be marked by intense guilt and shame, withdrawal, and self-sabotaging behaviors. A recent study using 2021 data assessed the relationship between moral injury and suicidal thoughts and behaviors in approximately 1200 US military veterans, healthcare workers, and first responders. The study controlled for common mental health contributors to suicidality.

Current Suicidal Ideation



Lifetime Suicide Attempt



The Moral Injury and Distress Scale was used to assess moral injury. Suicidal ideation was assessed by specific items in the Patient Health Questionnaire, while suicidal behavior was assessed based on number of lifetime suicide attempts.

VHA Telehealth CBT Program for Suicide Prevention¹⁰



Using EHR data from April 2021 to September 2023, researchers analyzed outcomes for more than 2700 veterans who received telehealth Cognitive Behavioral Therapy (CBT) for Suicide Prevention (SP). Veterans were eligible if they engaged in suicidal self-directed violence in the past 12 months. CBT-SP typically consists of 12 to 14 sessions. Patients were treated in all 50 states.

Average Attendance

8.5 sessions

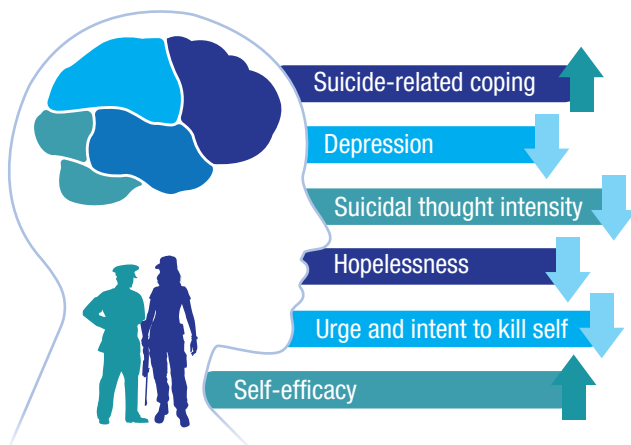
Average Wait Time: Intake to First Session

24.1
days

Average Time in Program

96.2
days

Improvements in Suicide-Related Outcomes



Post-Treatment Outcomes



Factors Related to Higher PTSD Prevalence in Younger Veterans⁵



Using a sample of more than 4000 veterans from the National Health and Resilience in Veterans Study, researchers examined sociodemographic, psychosocial, and trauma-specific factors that may affect higher PTSD prevalence in older vs younger veterans. Psychosocial characteristics encompassed difficulties (in work, relationships, or daily activities), loneliness, and avoidance coping, while trauma characteristics included military sexual trauma (MST), combat exposure severity, and adverse childhood experiences.

Positive Screen for PTSD



Aged < 50



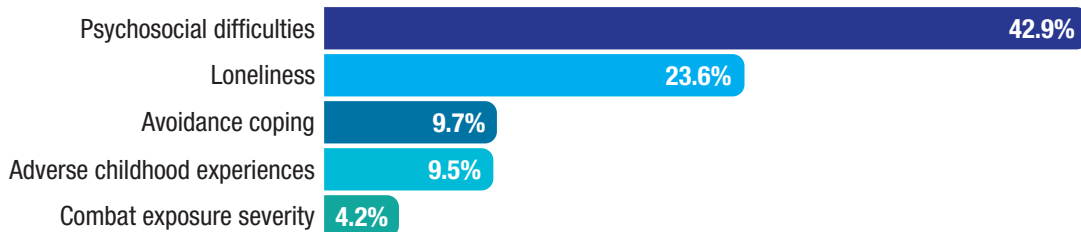
Aged ≥ 50

Despite a 3× higher prevalence, younger age no longer predicted a positive PTSD screen after accounting for the indirect effect of trauma and psychosocial factors.



Factors Contributing to Higher PTSD Prevalence

Percentages are the proportion of variance in PTSD prevalence accounted for by younger age by each variable.



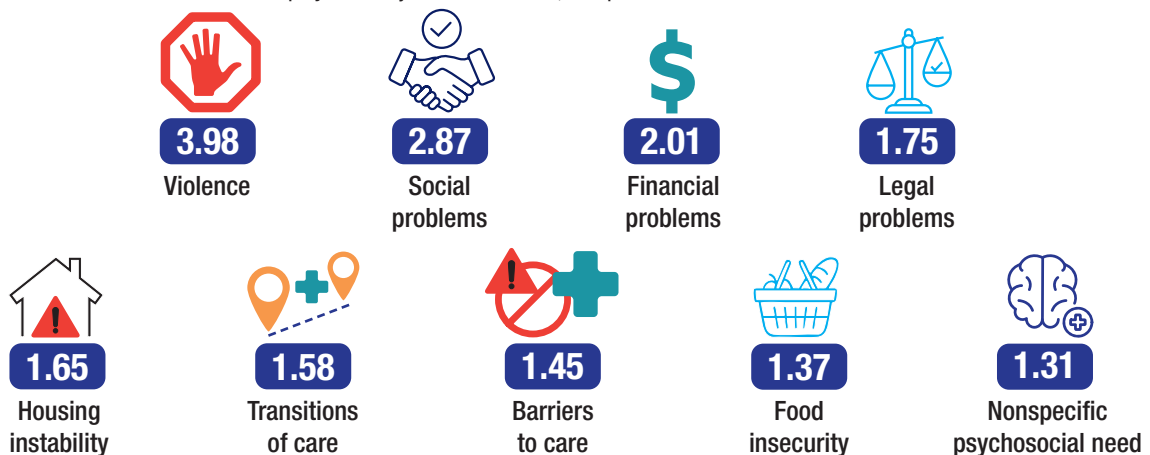
PTSD and Health-Related Social Needs in Veterans⁹



A recent dual-design study examined short- and long-term associations between PTSD diagnosis and health-related social needs. By using natural language processing models to extract VHA EHR data, researchers analyzed a cross-sectional sample from 2012 (n = 62,298) and a 10-year cohort from 2013 to 2023 (n = 11,758) to identify PTSD risks across social domains.

Short-Term Findings: Risk of Baseline Health-Related Social Needs in Those with PTSD

Displayed as adjusted odds ratios; compared to those without PTSD



Long-Term Findings: Trends Over 11-Year Study Period

- ▶ Social problems, violence, barriers to care, transitions of care, and nonspecific psychosocial needs: Increased risk initially, followed by a decline
- ▶ Financial problems, housing instability, legal problems, and food insecurity: No significant increase or decrease
- ▶ Overall trends: Health-related social needs remained elevated in some factors, indicating an ongoing impact of PTSD.



LGBTQ+ Veterans with PTSD¹¹



A study of over 270,000 veterans assessed demographic, comorbidity, and healthcare utilization differences in LGBTQ+ veterans with PTSD and non-LGBTQ+ veterans with PTSD using EHR data from 2017 to 2021. More than one-quarter of the cohort (27.4%) were LGBTQ+.

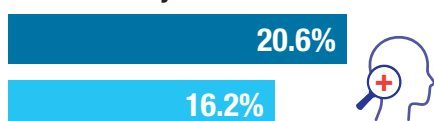
Drug use disorder



Bipolar disorder



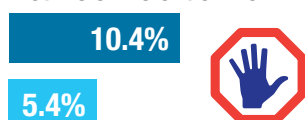
General anxiety disorder



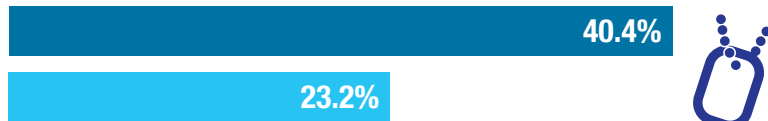
Major depressive disorder



Victims of violent crime



MST



Number of outpatient visits (mean)



LGBTQ+ veterans with PTSD were more likely to be female (32.9% vs 15.9%), less likely to be currently married (39.7% vs 49.5%), and more likely to be never married (25.9% vs 16.3%) than non-LGBTQ+ veterans with PTSD.

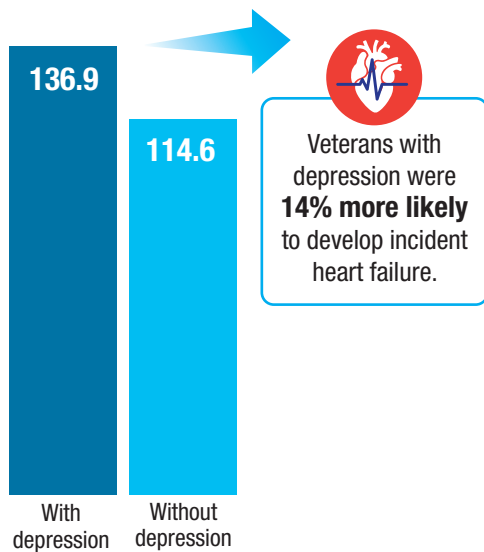
Depression and Heart Failure in Veterans¹²



An analysis of 15 years of data from more than 2.8 million veterans assessed the relationship between heart failure risk and depression. Prevalent depression was defined as one inpatient or two outpatient visits with codes for depression logged.

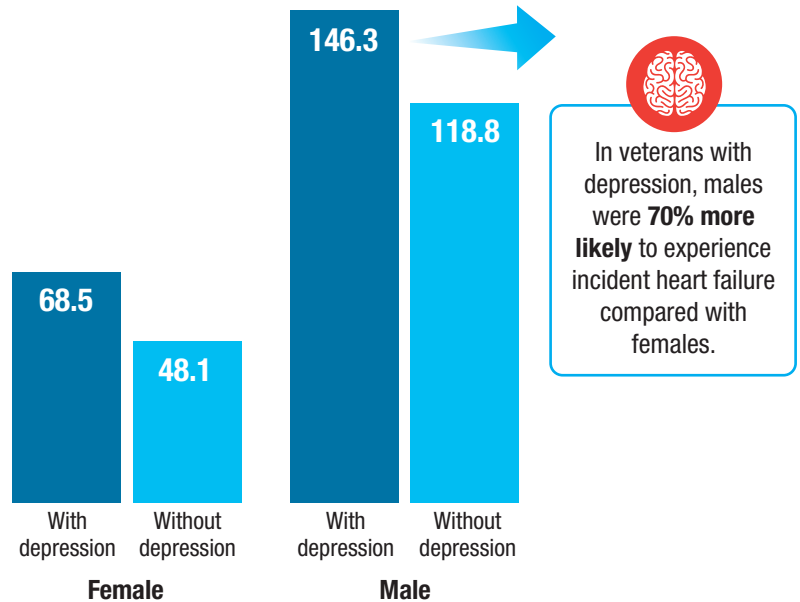
Unadjusted Incident Heart Failure Rate

Per 10,000 person-years



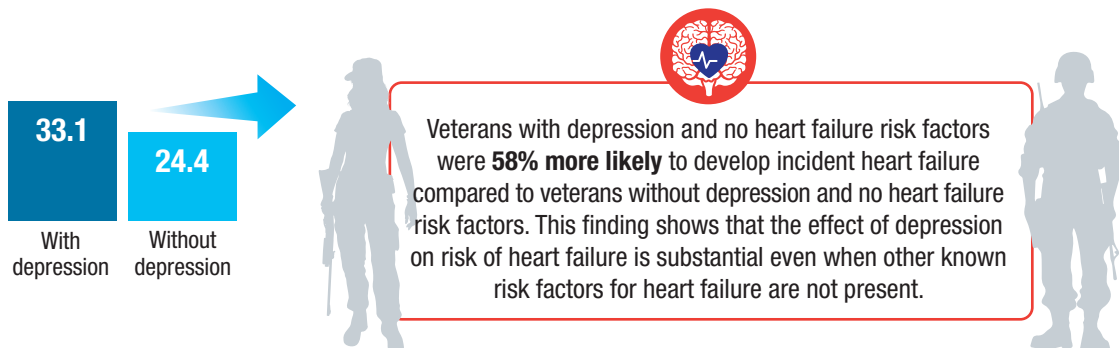
Unadjusted Incident Heart Failure Rate by Sex

Per 10,000 person-years



Unadjusted Heart Failure Incidence Rate in Low-Risk Cohort

Per 10,000 person-years

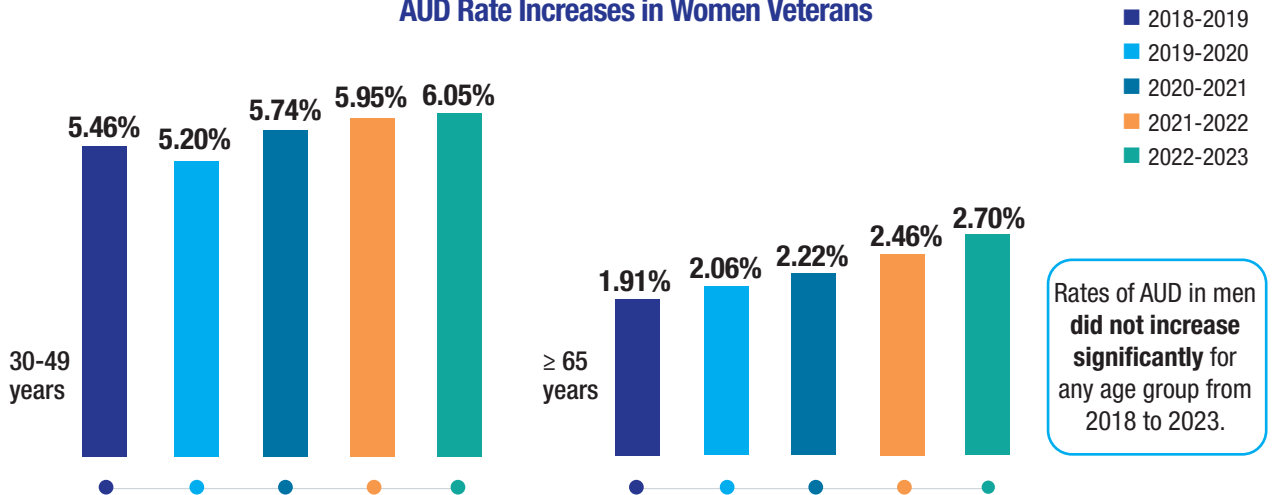


AUD and Insomnia Rates in Veterans⁷

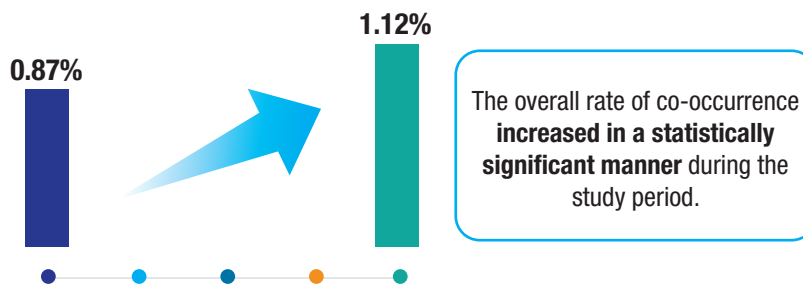


VA electronic records of more than 5.6 million veterans (age ≥ 18 years) were analyzed to assess rates of AUD and the co-occurrence of AUD and insomnia between 2018 to 2023. AUD rates were 5%.

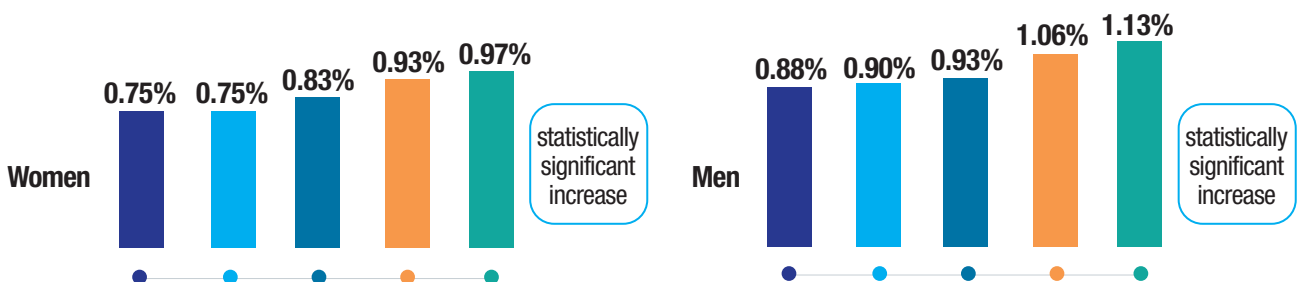
AUD Rate Increases in Women Veterans



Co-Occurrence of AUD and Insomnia



Co-Occurrence of AUD and Insomnia by Sex



Rate of co-occurring insomnia and AUD increased annually, while AUD rates only increased annually for women veterans in certain age groups.

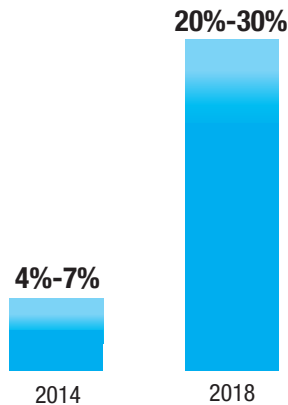
Healthcare Utilization for Veterans with AUD^{13,14}



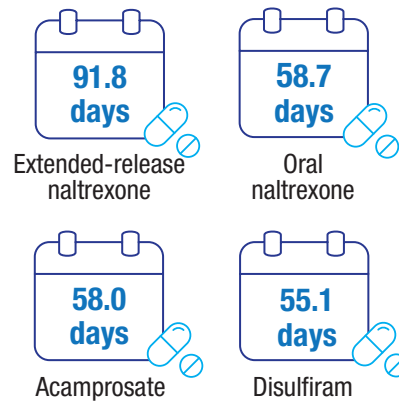
Researchers recently analyzed real-world data from over 31,000 VHA patients with AUD to assess treatment patterns, treatment adherence, and healthcare resource utilization between 2013 and 2019.

AUD Medication Initiation

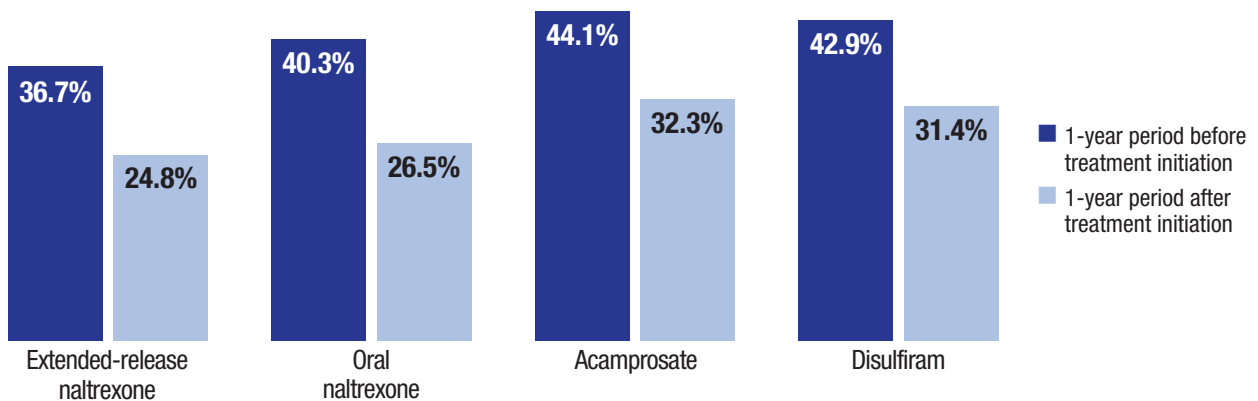
% of patients



Mean Time to Treatment Discontinuation



Proportion of Patients with ≥ 1 Inpatient Hospitalization



Another study looked at healthcare utilization among 280 women veterans, aged 21 to 65 years, who screened positive for at-risk drinking from 2010 to 2016. At-risk alcohol behavior was determined from the Alcohol Use Disorders Identification Test-Consumption.

Of those referred to treatment after an initial alcohol screen,

73.0%
initiated treatment.

Factors Related to Treatment Initiation



Less likely to initiate
Hispanic women and those aged 21-24 years



More likely to initiate
Those with female providers, and a history of MST, AUD, or binge drinking



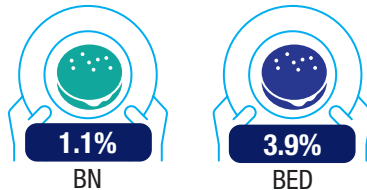
Racial, Ethnic, and Sex Differences in Eating Disorders⁸



Two decades of VHA data were analyzed from over 180,000 military service members to determine prevalence of bulimia nervosa (BN) and binge eating disorder (BED), and the association with racial, ethnic, and sex-based factors. Probable BN and BED were measured by the eating disorder module of the Primary Care Evaluation of Mental Health Patient Questionnaire.

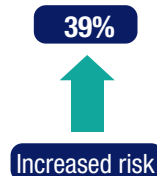
Screened Prevalence

% of sample



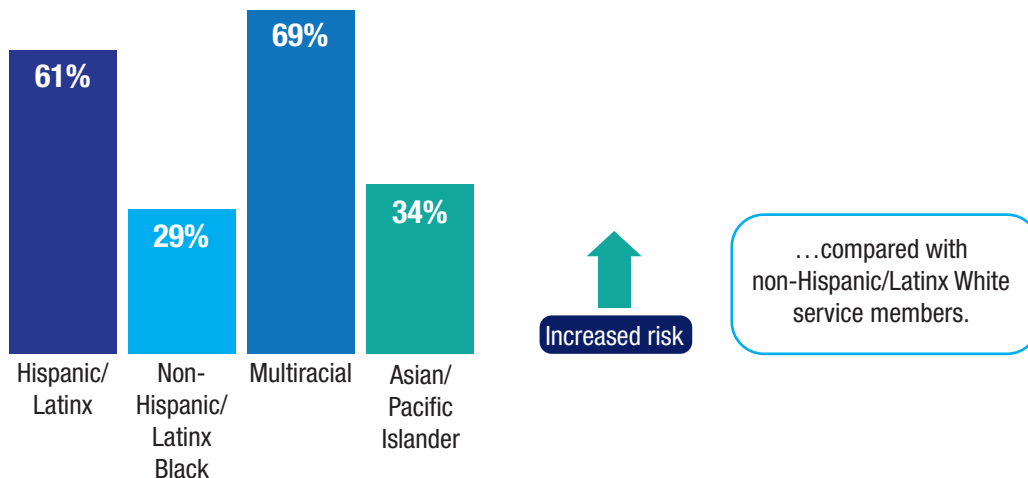
Sex Differences in BN

Women

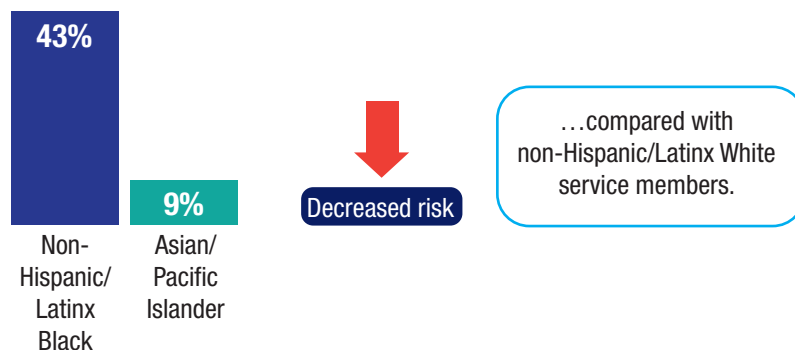


...compared with men service members.

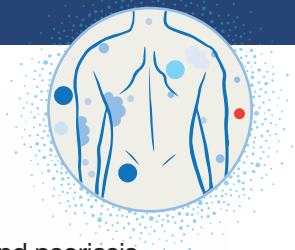
Racial and Ethnic Differences in BN



Racial and Ethnic Differences in BED



There were no differences in BED by sex, but there were racial and ethnic factors that affected likelihood of BED among military service members.



Dermatology

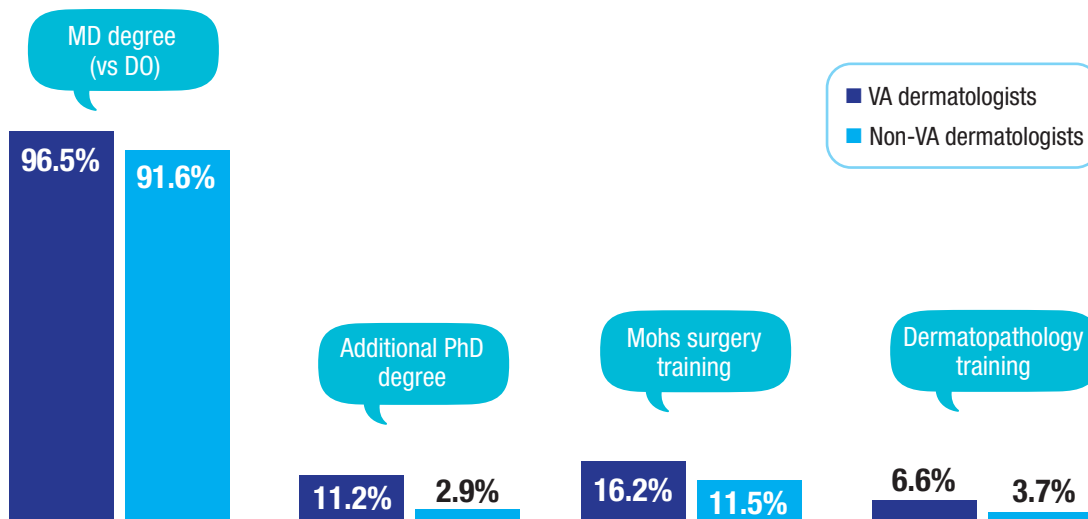
US veterans face substantial dermatologic disparities, with higher rates of skin cancer and psoriasis diagnoses compared with civilians.¹ Additionally, more than half of US states fall below the level of adequate access to care, defined as 4 dermatologists per 100,000 veterans.² The Maintaining Internal Systems and Strengthening Integrated Outside Networks (MISSION) Act was established in 2018 to help expand access to care for veterans.³ Dermatology appointment demand shifted to community care after the MISSION act.³ Overall wait times for dermatologists remain high and inconsistent across the US, likely driven by geographic provider density, rather than the policy change itself.^{2,3}

VA Dermatology Workforce Trends^{2,4}



A recent study reviewed data from the VA Specialty Care Programs Office and the Medicare National File on 780 VA dermatologists and over 12,000 non-VA dermatologists in 2023.

Dermatologist Credentials



Department Size

Number of dermatologists per group



Location of Dermatologists

Located in metropolitan counties; defined as an urban area with > 50,000 residents

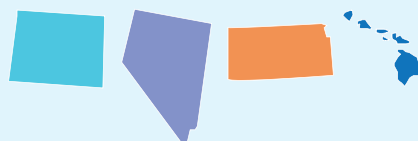
Access to VA Dermatologists



More than half of US states fall below adequate access standards.



4 states have < 1 dermatologist per 100,000 veterans: **Wyoming, Nevada, Kansas, Hawaii.**



Demand and Wait Times for Veteran Dermatology Visits³



Data from the VHA Corporate Data Warehouse (2014-2021) were analyzed to assess demand and wait times for dermatology appointments. Community dermatology appointments were included in the analysis. The MISSION Act allows veterans to qualify for reimbursed community care if a VHA specialty appointment exceeds a 28-day scheduling window, highlighting a shift in how veteran healthcare access is managed and distributed.



1,613,262 dermatology appointments

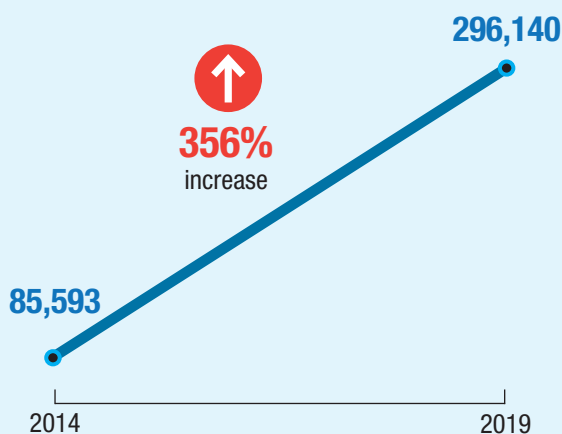
took place across



130 VHA facilities.

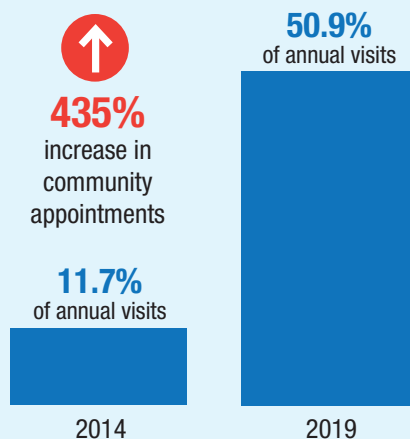
Number of Overall Dermatology Appointments

From VHA and Community Appointments



Percentage of Community Dermatology Appointments

From VHA referrals



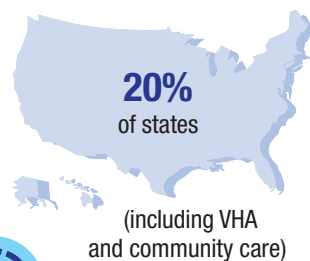
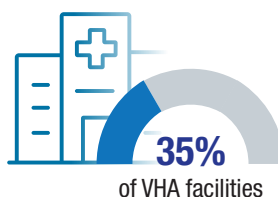
Mean Annual Wait Time Change

From 2014-2021



Longer wait times occurred in the community, especially from 2018 to 2021, with an **increase of 7.7 days**.

Median Wait Time of < 28 Days in 2021



Wait times for dermatology appointments at the VHA ranged from **6 to 93.5 days**, showing high variance in appointment wait times across VHA clinics.



The shift from VHA to community dermatologic care has led to longer wait times in the community, offsetting improvements within VHA facilities, potentially due to factors like specialist shortages and pandemic-related disruptions.



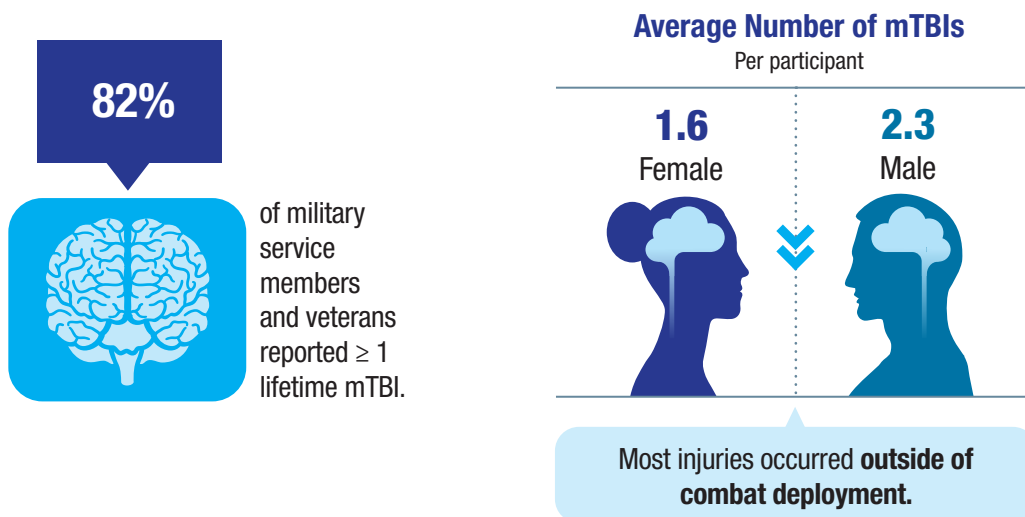
Neurology

Traumatic brain injury (TBI) is a critical area of concern and driver of morbidity for veterans, who face a mortality rate more than three times higher than healthy civilians.^{1,2} This elevated risk is compounded by secondary neurological conditions.³⁻⁵ After a TBI, individuals have an increased risk of epilepsy — which carries its own increased mortality burden — and a 113% increased risk for dementia later in life.³⁻⁵ High baseline fitness provides lasting cognitive protection, while regional incidence of dementia varies across the US.^{6,7} The VHA highlights a multifaceted approach to other neurological conditions, such as dementia, from prevention to clinical care.⁶

Sex Differences in mTBI in Service Members and Veterans¹

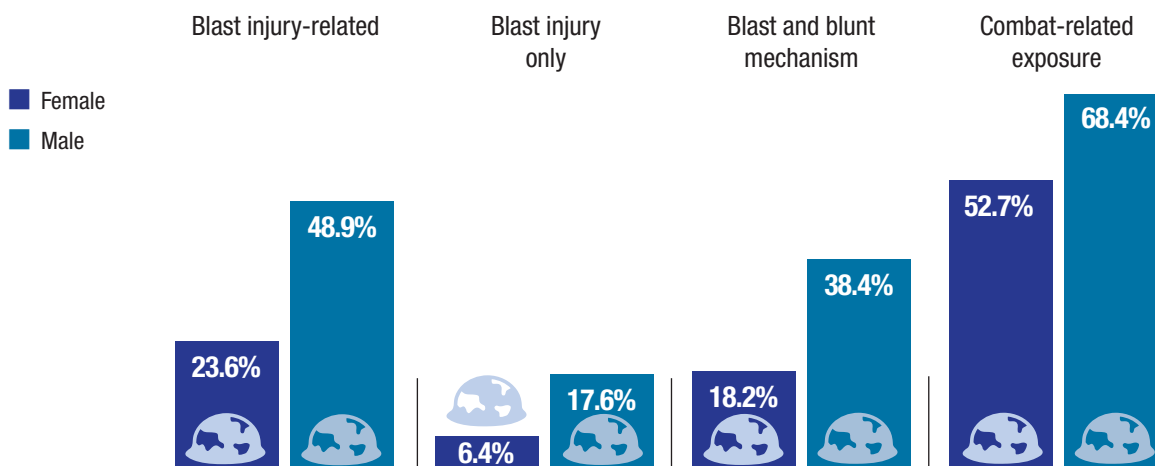


A study of more than 2300 military service members and veterans evaluated sex-related differences in lifetime mild TBI (mTBI) exposure from 2015 to 2022. Participants had at least one prior deployment to a combat zone, and no history of moderate-to-severe TBIs or significant neurologic or psychiatric comorbidities.



Type of TBI Exposure by Sex

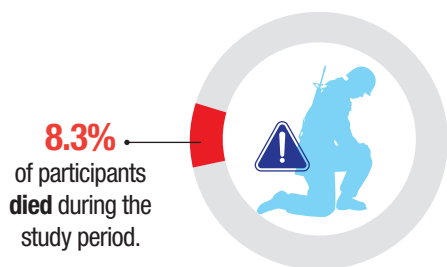
In those with ≥ 1 lifetime mTBI



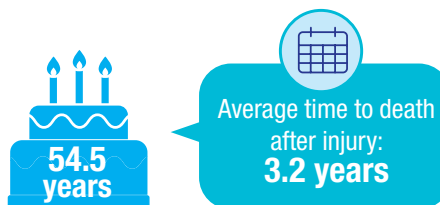
Mortality Following TBI in Service Members and Veterans²



A longitudinal analysis of more than 900 veterans and service members with TBIs assessed mortality rates and related mortality factors up to 10 years post-TBI (2009-2020). Mortality and life expectancy estimations for veterans and service members were compared with those of the general population (2015-2016).



Mean Age of Death



Life Expectancy Reduction



Service members
and veterans had a
7-year reduction

Standard Mortality Ratio

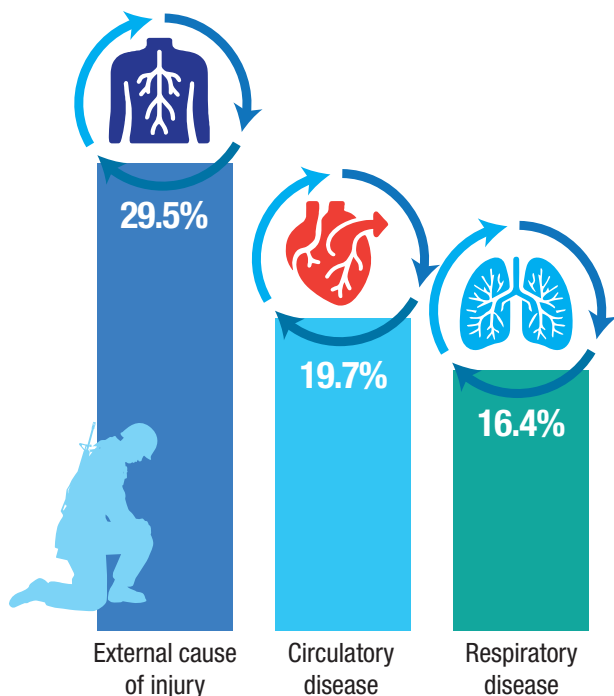


Service members
and veterans had a **3.62x**
increase in mortality

...compared with the general US population

Most Common Cause of Death

In those with a known cause, displayed as % of
participants with known cause



Risk Factors for Mortality

Those who died were...

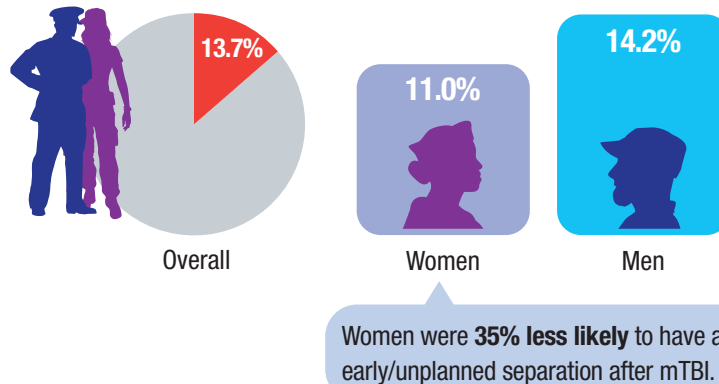
- +** Older at time of injury:
51 vs 35 years (mean age)
- +** More likely to be unemployed:
6.2x
- +** More likely to have a history of
mental health issues: **2.0x**

Early/Unplanned Service Separations After mTBI⁸

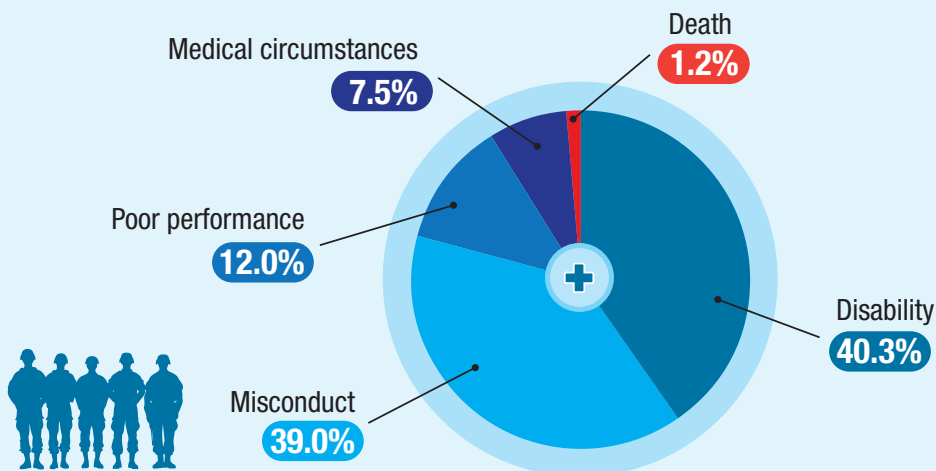


A **retrospective cohort study** assessed more than 75,000 active-duty service members for early/unplanned separations (2011-2018) — defined as disability, misconduct, poor performance, death, or medical circumstances — within 2 years of sustaining an mTBI.

Incidence of Early/Unplanned Separations



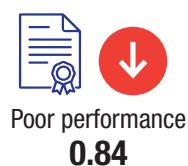
Causes of Separation



Causes of Separation by Sex

Displayed as hazard ratios

Female service members were less likely to separate due to...



But, more likely to separate due to...



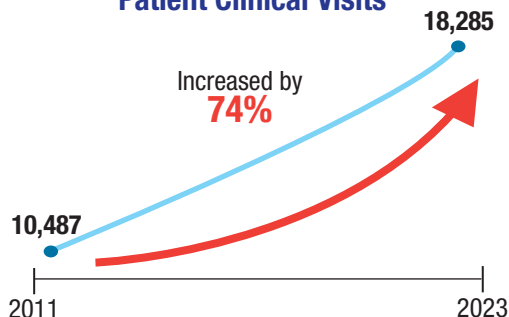
...compared with male service members

VHA Epilepsy Center of Excellence⁹

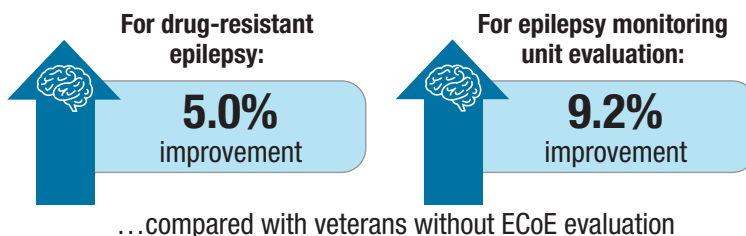


Researchers evaluated the performance of the VHA Epilepsy Center of Excellence (ECoE), which was founded in 2008. Clinical care, research, education, and outreach were measured by analyzing the ECoE website information and annual reports along with relevant data from 2011 to 2023.

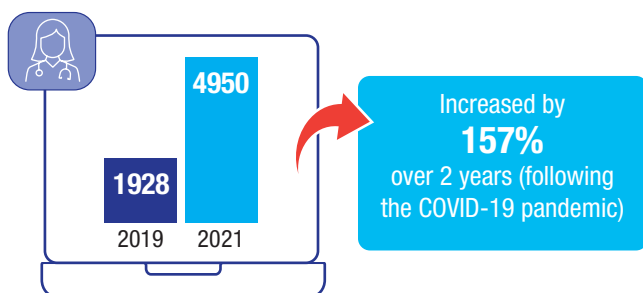
Patient Clinical Visits



Mortality Rate Improvement



Tele-Epilepsy Visits



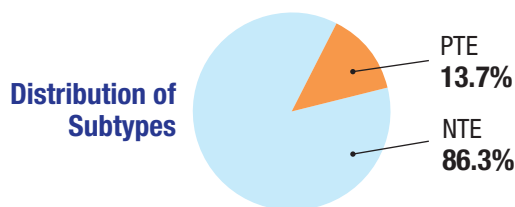
Research Grant Funding



Mortality in Posttraumatic and Nontraumatic Epilepsy³



Data from over 210,000 veterans with epilepsy were assessed to identify differences in mortality for nontraumatic epilepsy (NTE) and posttraumatic epilepsy (PTE), defined as documented TBI within 5 years before an epilepsy diagnosis.



Mortality Rates for PTE

Displayed as hazard ratios (HRs)



Extracerebral TBI



Fracture TBI



Diffuse cerebral TBI



Focal cerebral TBI

Underlying concussion had a lower mortality rate for PTE compared with NTE (HR, 0.91).

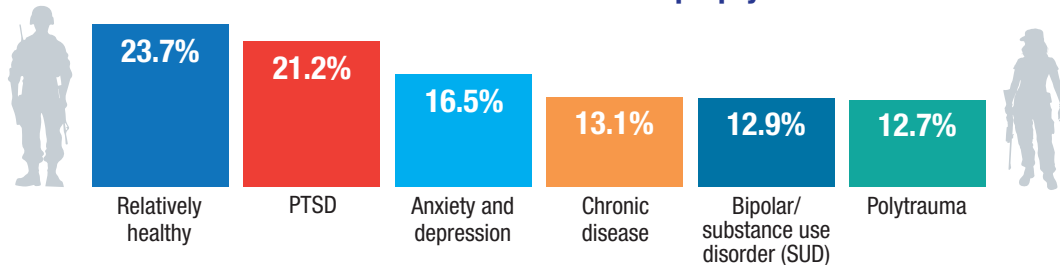
Although the overall mortality rate was similar between extracerebral-related PTE and NTE, this was driven by a high portion of the extracerebral subgroup being older in age. In contrast, significantly higher mortality risks were observed in younger patients with extracerebral-related PTE, such as those with epilepsy onset at ages 18 to 39 years (HR, 2.02) and 40 to 59 years (HR, 1.25).

Epilepsy and Comorbidities in Post-9/11 Veterans¹⁰

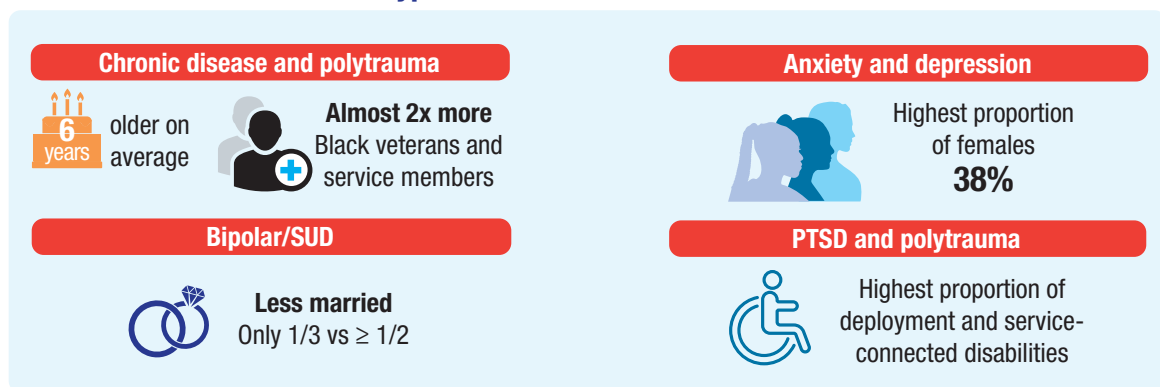


Using EHR data from more than 15,700 post-9/11 veterans and service members (2002-2018), researchers assessed potential comorbidities associated with epilepsy.

Distribution of Patients With Epilepsy



Phenotype Characteristics and Associations



...compared to the rest of the comorbidity groups

Overall Mortality



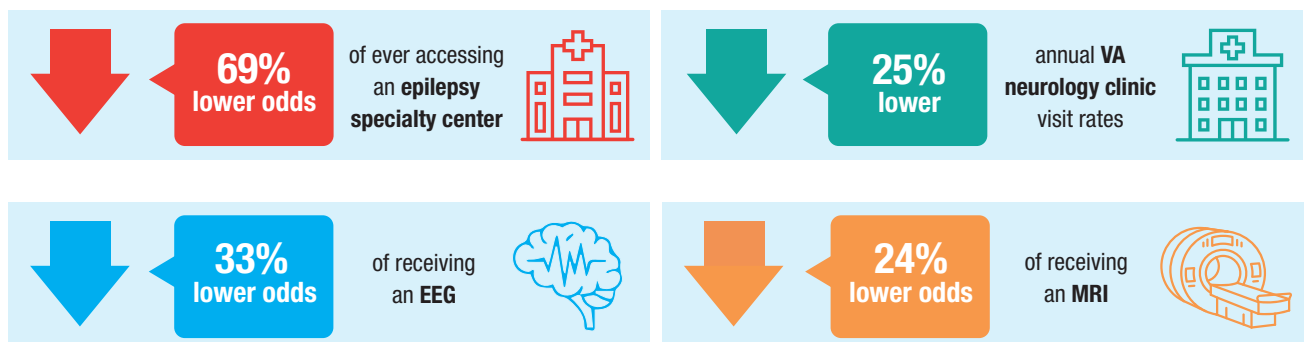
The highest mortality by group was seen in the **chronic disease and bipolar/SUD groups, both at > 16%**. The most common causes of death included accidents, suicide/mental health-related, and cancer.

Social Factors and Healthcare Use in Veterans With Epilepsy¹¹



A study of more than 6000 veterans with PTE assessed the effect of social determinants of health on healthcare use from 1997 to 2022. Area deprivation index (ADI) was measured to determine the level of disadvantage in a US region. The ADI includes factors such as income, education, employment, and housing quality.

Compared with veterans in the least disadvantaged areas (first ADI quartile), those in the most disadvantaged areas (fourth ADI quartile) have...



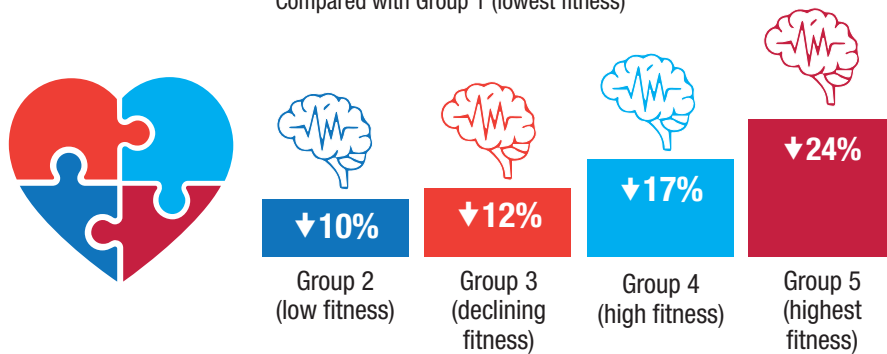
Alzheimer and Dementia: Cardiovascular Fitness Levels⁷



A study of over 75,000 veterans who had three or more exercise treadmill tests completed assessed the effect of cardiovascular fitness on later incident Alzheimer disease and related dementias (ADRD). Cardiovascular fitness was measured in metabolic equivalents (METs), which were based on treadmill speed, grade, and time.

Reduction in Risk of Developing ADRD

Compared with Group 1 (lowest fitness)



Higher initial cardiovascular fitness correlated with a significant reduction in incident ADRD. Notably, veterans who started with high fitness levels but experienced a decline (Group 3) still maintained a lower risk of dementia compared with those with consistently low fitness levels.

Mechanical Ventilation and Mortality in Veterans With Dementia¹²



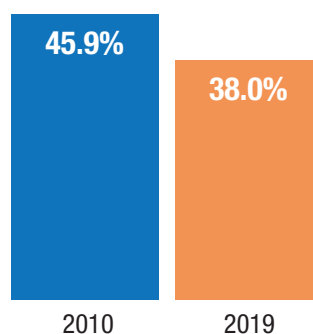
Researchers assessed the use of mechanical ventilation, a critical intervention for respiratory failure in late stage dementia, and its relation to mortality in veterans with dementia (aged 65 years or older) who were hospitalized from 2010 to 2019 (n = > 250,000).

Mechanical Ventilation Use



Veterans who received mechanical ventilation had improved outcomes over time:

Annual In-Hospital Mortality



1-Year Mortality



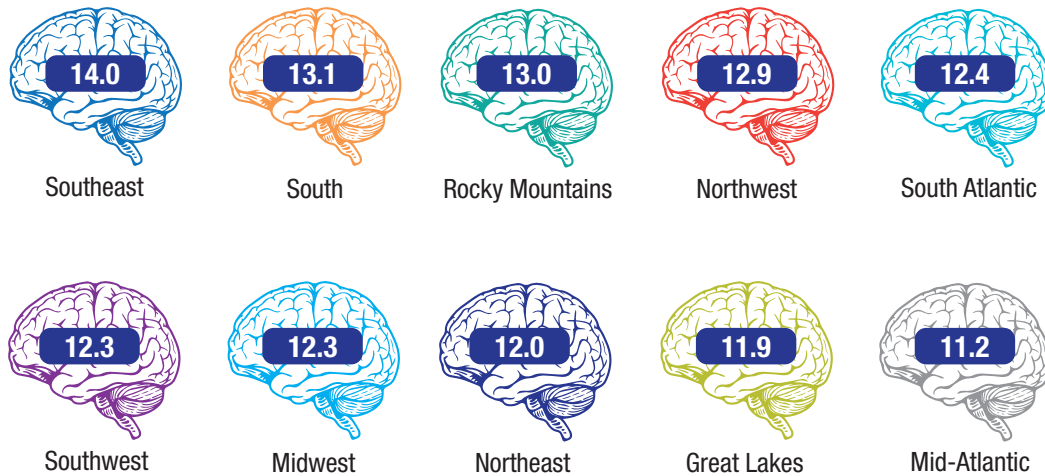
Geographic Differences in Incidence of Dementia⁶



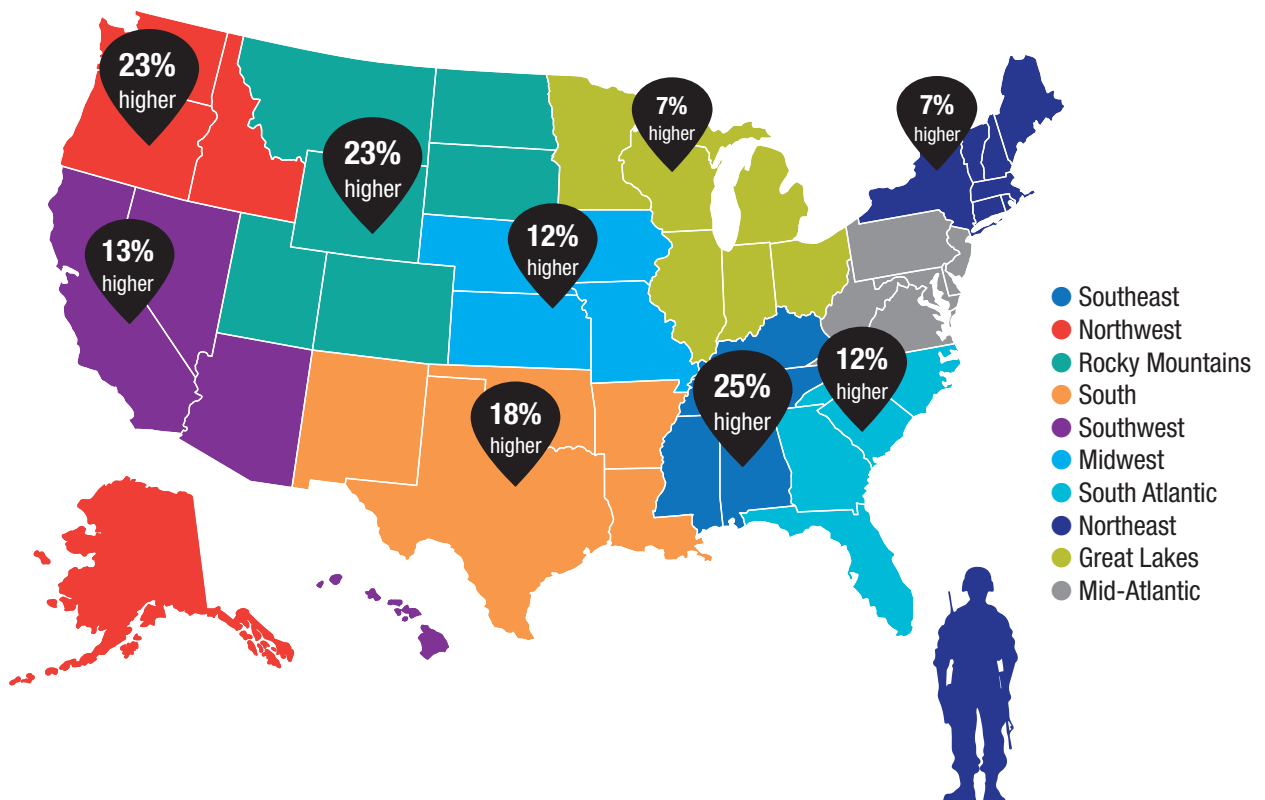
A study of over 1.2 million veterans analyzed US regional differences in dementia incidence among patients (aged 65 years or older) at the VHA from 1999 to 2021.

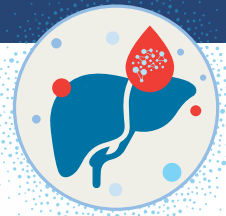
Dementia Incidence Rate

Per 1000 person-years



Incidence Rate Compared To Mid-Atlantic Region





Hepatology

An estimated 4.1 million veterans—45% of the veteran population—have risk factors for metabolic dysfunction-associated steatotic liver disease (MASLD).¹ A recent retrospective cohort study found that veterans with steatotic liver disease had different main causes of death depending on liver disease subtype and the presence of cirrhosis.² Results underscored the value of integrated management of alcohol use, cardiometabolic risk, and cancer screening in veterans.

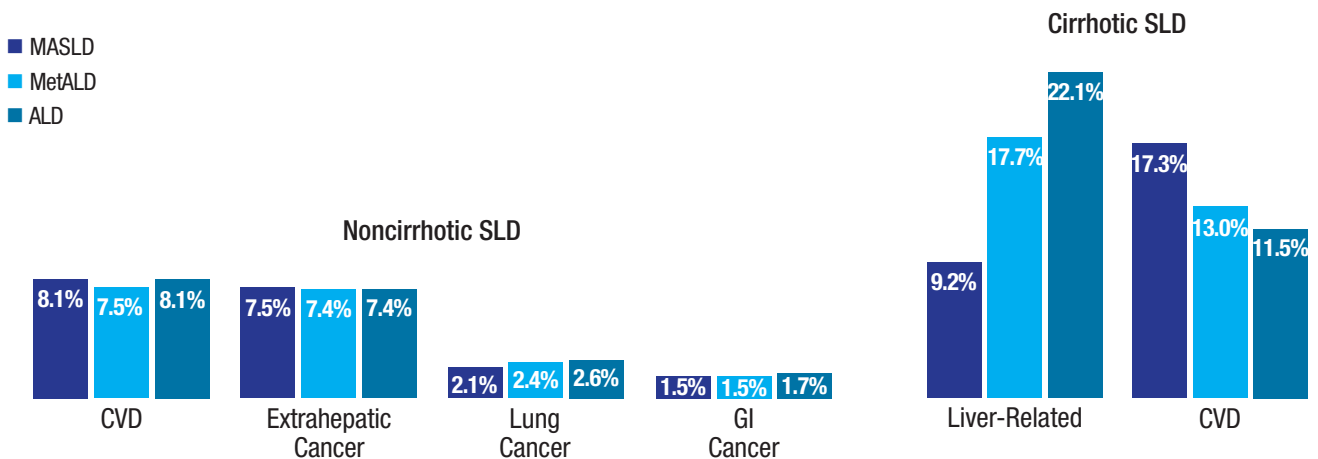
Although many veterans carry metabolic risk factors for MASLD, only a small subset have a documented diagnosis or undergo formal fibrosis staging.¹ Veterans who do receive a MASLD or cirrhosis diagnosis tend to have more metabolic comorbidities, more liver enzyme abnormalities, and more evidence of fibrosis than their undiagnosed peers, while clinical diagnosis is closely tied to access to hepatology care, weight management programs, and glucagon-like peptide-1 (GLP-1) therapies.

Progressive Liver Mortality Risk in Veterans²



To understand how MASLD, alcohol-associated liver disease (ALD), and metabolic dysfunction–and alcohol-related steatotic liver disease (MetALD) influence a veteran's long-term health, a national study tracked more than 366,000 veterans with imaging-confirmed hepatic steatosis over a 12-year period.

Causes of Mortality: 10-Year Cumulative Incidence



GI, gastrointestinal; SLD, steatotic liver disease

High-Risk Groups and Clinical Implications



Patients with ALD and MetALD had progressively higher liver-related mortality than those with MASLD, with the steepest rates in patients with ALD.



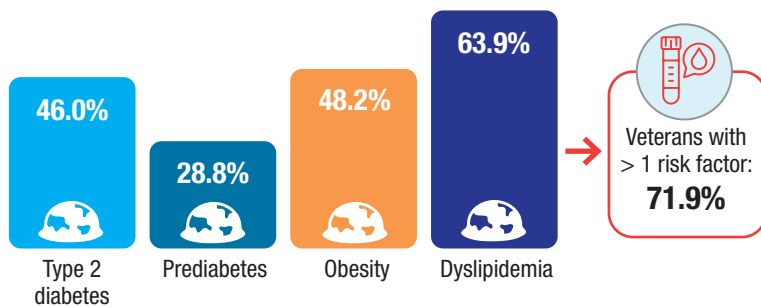
Women with cirrhotic MASLD have 60% higher liver disease-related mortality vs men.



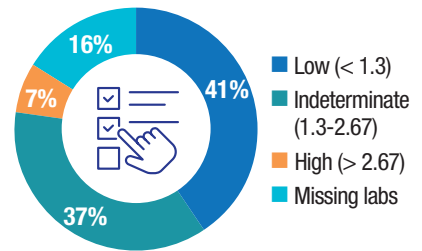
- 3 in 5 patients with ALD have ≥ 3 cardiometabolic risk factors.
- 85.1% of patients with MetALD have hypertension.
- Patients with noncirrhotic MASLD have significantly higher incidence of death from CVD and extrahepatic cancer than liver disease. Ages 18-64: 8× higher; Ages 65+: 20× higher

Missed MASLD: Limited Diagnosis and Staging¹

MASLD Risk Factor Prevalence in Veterans



FIB-4 scores



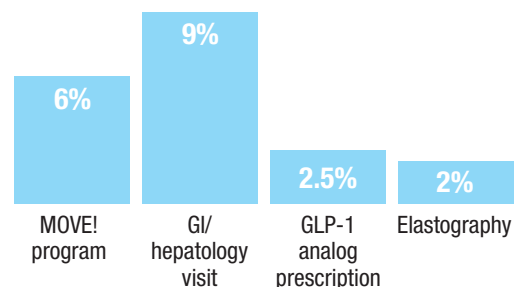
Few At-Risk Veterans Are Diagnosed/Seek Treatment

Only **6%** of at-risk veterans have a documented MASLD or cirrhosis diagnosis.

At-risk veterans without a clinical MASLD diagnosis were **> 3x less likely to see GI/hepatology** than those with a diagnosis.

Low Care Use Among At-Risk Veterans

(1 year follow up)



- ✓ Veterans with **indeterminate or high FIB-4 scores** were about **1.5-4x as likely (respectively)** to **undergo elastography** compared with those with low risk.
- ✓ Higher odds of elastography were seen in those who were younger, White or Hispanic, with more metabolic comorbidities, and alcohol use disorder.



MOVE! is the VA's structured, evidence-based lifestyle and weight management program (nutrition, physical activity, behavior change), delivered via groups, telehealth, and individual visits.

Impact of Diagnosis



Diagnosis opens the door to care: Among at risk veterans, **MASLD diagnosis sharply increases** liver focused care and testing.



MASLD diagnosis

- ▲ **5x** higher odds of a GI/hepatology visit
- ▲ **35x** higher odds of elastography



Cirrhosis diagnosis

- ▲ **8x** higher odds of a GI/hepatology visit
- ▲ **4x** higher odds of elastography

... compared with undiagnosed, at-risk veterans

FIB-4, Fibrosis-4 score; GI, gastrointestinal; GLP-1, glucagon-like peptide-1



Pulmonology

Recent analyses of VA and military cohorts show that obstructive sleep apnea (OSA) signals both short-term morbidity and long-term neurodegenerative risk. Active-duty service members with newly diagnosed OSA had higher 12-month risks of physical and psychological conditions and greater healthcare use than matched peers, while VA data identified OSA as an independent midlife risk factor for incident Parkinson disease (PD).^{1,2} Early, sustained continuous positive airway pressure (CPAP) treatment substantially reduced PD risk, supporting OSA as a potential modifiable contributor.²

Complementary VA cohort studies similarly highlight the power of vaccines to prevent respiratory illness in older and medically vulnerable veterans. Influenza and respiratory syncytial virus (RSV) each increase the risk of secondary pneumococcal infection in hospitalized patients. Sequential pneumococcal vaccination—PCV13 followed by PPSV23—provides superior protection against invasive pneumococcal disease compared with single vaccine strategies.^{3,4}

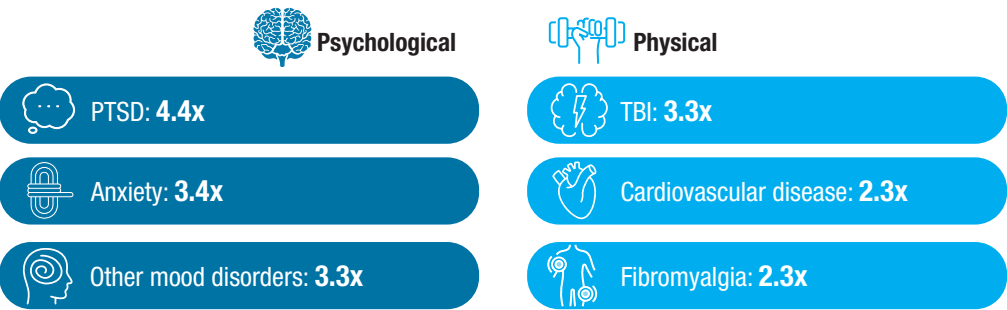
Burden of OSA in Active-Duty Service Members¹



A retrospective analysis of more than 59,000 active-duty service members newly diagnosed with OSA compared incident medical and psychiatric outcomes and 12-month healthcare to outcomes in a matched cohort without OSA.

Increased Risk of Comorbidities in Military Personnel With OSA

vs matched peers without OSA



Annual Healthcare Encounters for Non-OSA Issues

In newly diagnosed active-duty service members, compared with those without OSA

	Encounters per year	Rate ratio
 Outpatient	+170,511	1.8
 Inpatient	+66	1.1
 Emergency department	+1852	1.4



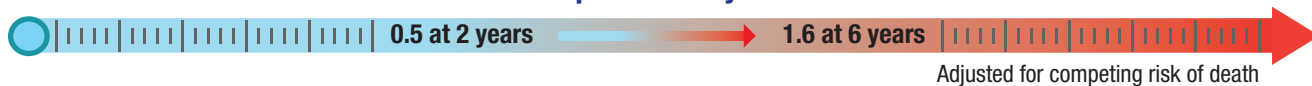
Newly diagnosed OSA in active-duty service members was associated with significantly increased risk for all examined physical and psychological health outcomes and markedly higher healthcare use over 12 months.

OSA as a Risk Factor for Parkinson Disease in Veterans²



An EHR-based cohort study of more than 11.3 million veterans (> 1.5 million with OSA) from 1999 through 2022 evaluated incident PD and risk modification with CPAP usage.

Extra PD cases per 1000: 6 year PD incidence



OSA-Related PD Risk



1.9-fold increase
in PD among veterans with
OSA vs no OSA

Hazard Ratios (HRs)

Women: 4.2

Men: 2.2

Mild OSA vs no OSA, HR

Mild: 3.2

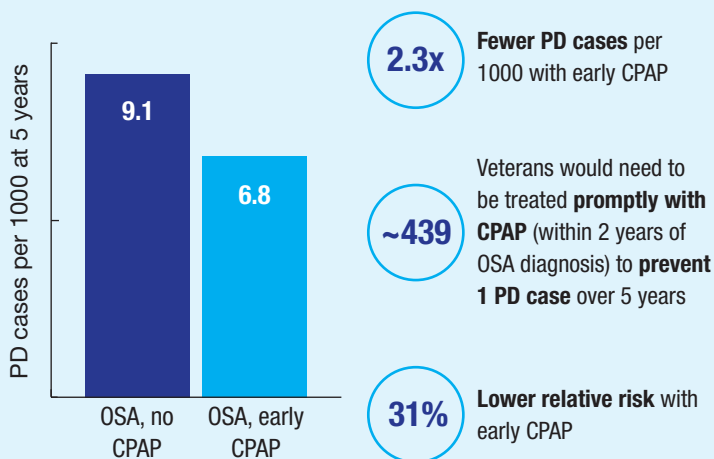
Severe OSA vs no OSA, HR

Severe: 3.4



Patients with severe OSA showed an earlier increase in PD risk (around year 1 after OSA diagnosis, vs around year 5 for mild OSA).

Early CPAP Treatment Lowers PD Risk



Sensitivity

- ✓ **Effects persisted** with additional adjustments (BMI, vascular and psychiatric comorbidities, sleep disorders, TBI, medications) and stricter CPAP adherence definition (HR ~ 0.65-0.70).
- ✓ A **significant benefit** was seen in men (HR 0.68), while estimates in women were imprecise.

Healthcare Utilization Differences

Veterans with OSA had many **more outpatient visits** before the OSA diagnosis/index date (mean 34.9 vs 2.6), raising concern for surveillance bias.

After adjusting for healthcare utilization:

- ↑ OSA remained associated with **higher PD risk (HR 2.3)**.
- ↓ CPAP remained protective (**HR 0.7**).
- ✗ Negative control outcomes (eg, tinnitus, biliary cancer) **did not** show similar patterns.

Early CPAP and Outcomes After PD Diagnosis



Early CPAP → **no difference** in motor/nonmotor PD symptoms.



Early CPAP → **lower rates of falls, fractures, and mortality** after PD diagnosis.

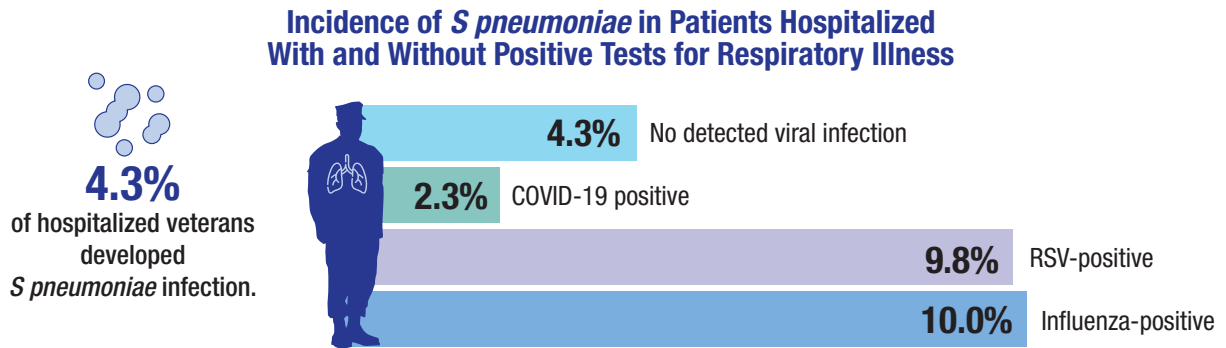


OSA is an independent PD risk factor; **early, sustained CPAP substantially reduces** this midlife risk.

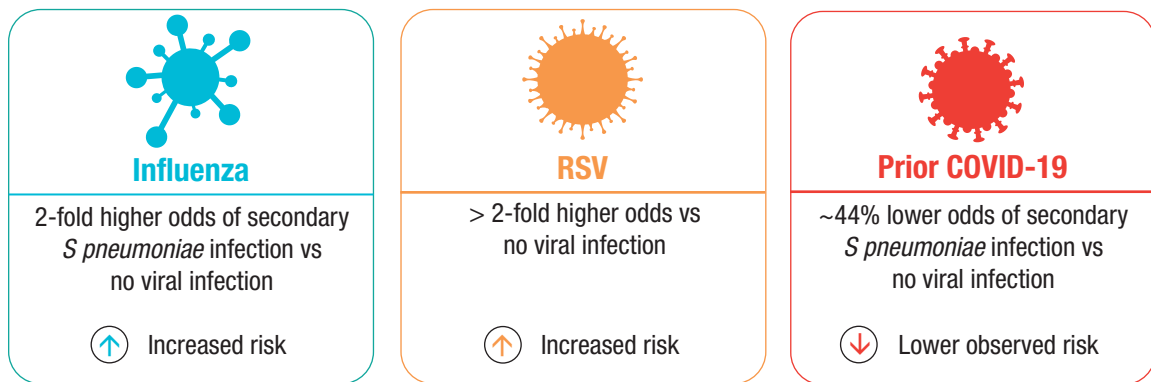
Secondary *S pneumoniae* Infection in Veterans³



A 2026 VA cohort study examined more than 188,000 hospitalized veterans over a 10-year period to assess how often pneumococcal infection occurred after infection with influenza, RSV, or COVID-19.



Risk of Secondary *S pneumoniae* Infection by Preceding Virus



Reference group: patients without documented viral infections

Outcomes in Veterans With vs Without *S pneumoniae*



30 day readmission:

Without *S pneumoniae*: **16.5%** | With *S pneumoniae*: **13.1%**



30 day mortality:

Without *S pneumoniae*: **16.8%** | With *S pneumoniae*: **11.1%**



1 year mortality:

Without *S pneumoniae*: **37.3%** | With *S pneumoniae*: **27.7%**

Key driver of mortality:



COVID-19 infection: **OR 1.8**



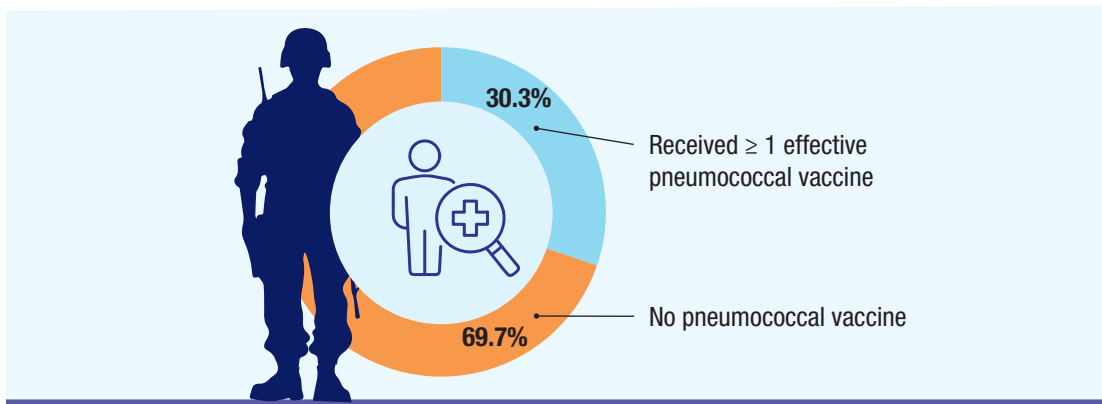
Metastatic cancer: **OR 2.1**

Pneumococcal Vaccine Strategies in Older Veterans⁴



A large retrospective cohort analysis of more than 3 million older veterans who received primary care at the VHA between 2005 and 2021 sought to compare effectiveness of pneumococcal vaccines (PCV13 and PPSV23) and their combinations.

Vaccination Overview

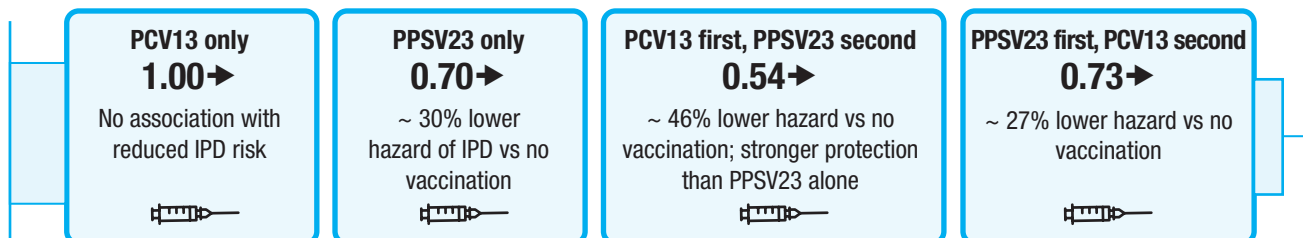


Exposure Definition

- Vaccination effect counted starting 28 days after each dose (to allow immune response)
- Time-to-first invasive pneumococcal disease (IPD); death treated as a competing risk in Cox models

IPD Outcomes

Adjusted HRs, compared with veterans who were not vaccinated

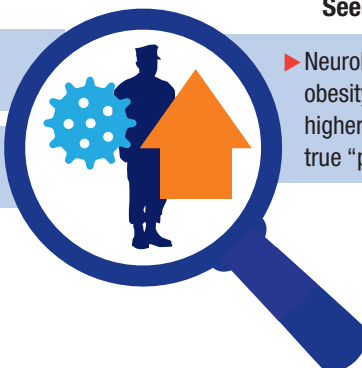


No evidence of waning effect over time on IPD was observed within the follow-up period.

Key High-Risk Groups

Increased IPD risk

- ▶ Immunocompromised conditions (eg, lymphoma, HIV infection)
- ▶ Chronic pulmonary diseases



Seemingly "Protective" Associations

- ▶ Neurologic disorders, hypothyroidism, and obesity appeared "protective," likely reflecting higher competing risk of death rather than true "protection" from IPD.



Rheumatoid Arthritis

Rheumatoid arthritis-associated lung disease is an important and often under recognized source of morbidity in veterans with rheumatoid arthritis. Emerging VA data from large connective tissue disease cohorts show that rheumatoid arthritis constitutes the bulk of connective tissue disease cases, and rheumatoid arthritis-associated lung disease frequently develops years after the initial rheumatologic diagnosis, emphasizing the value of long-term respiratory vigilance in this population.¹

VA researchers developed an experimental three-marker blood test that modestly improves prediction of rheumatoid arthritis-associated interstitial lung disease and may help flag veterans who need earlier lung screening and closer monitoring.² Longitudinal forced vital capacity analyses in veterans with rheumatoid arthritis-associated interstitial lung disease show that both slow and rapid forced vital capacity decline are associated with higher mortality and respiratory hospitalizations than stable lung function.³ Together, these data show the value of earlier, phenotype informed, and risk stratified screening strategies, along with timely intervention for veterans with rheumatoid arthritis-associated interstitial lung disease before irreversible decline occurs.

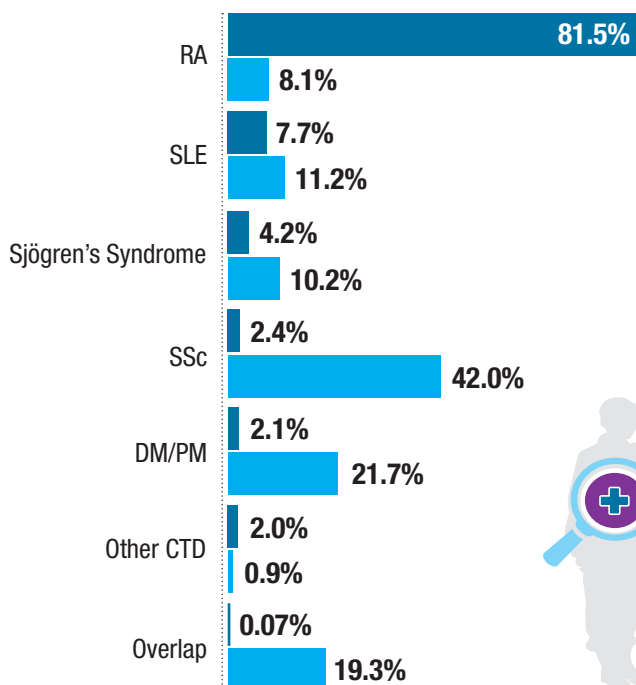
Mapping Connective Tissue Disease-Associated Interstitial Lung Disease¹



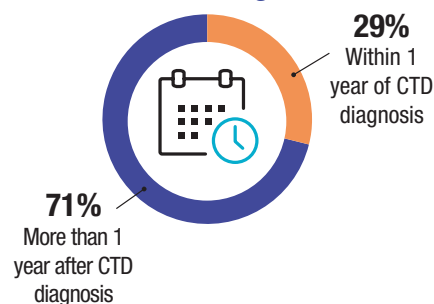
A nationwide VA cohort included > 88,000 veterans with connective tissue disease (CTD), followed for an average of 8.8 years; most were male, White, and had a mean age of 60.4 at CTD diagnosis.

CTD Types and ILD Burden in Veterans

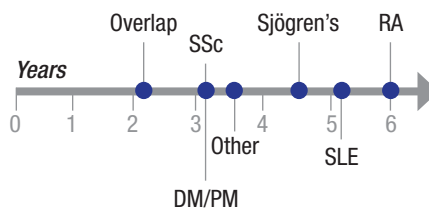
- Share of all veterans with CTD
- Prevalence of ILD in veterans with this CTD



Mean Years From CTD Diagnosis Until ILD is Diagnosed



Mean Time to ILD Diagnosis by CTD Subtype



CTD, connective tissue disease; DM/PM, dermatomyositis/polymyositis; ILD, interstitial lung disease; RA, rheumatoid arthritis; SLE, systemic lupus erythematosus; SSc, systemic sclerosis



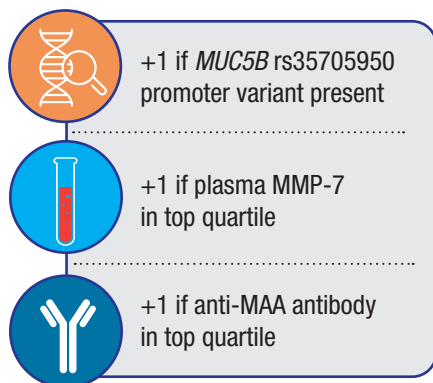
This longitudinal VA cohort highlights wide variation in CTD-ILD burden and time to ILD diagnosis across CTD subtypes in veterans, as shown by differences in both prevalence and mean years to ILD.

3-Point Blood Score for Identifying RA-ILD Risk in Veterans²



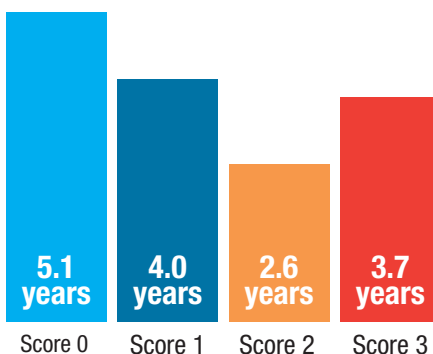
In a **multicenter cohort** of veterans with RA, researchers evaluated whether three blood biomarkers could help identify patients at higher risk for RA-ILD. They used the mucin 5B (*MUC5B*) promoter variant, plasma matrix metalloproteinase 7 (MMP-7), and anti-malondialdehyde acetaldehyde–albumin (MAA) antibodies, and tested against both existing and future RA-ILD. The score summarizes the three biomarkers into one simple risk measure.

Three Biomarker Score (0-3 points)



Future (Incident) RA-ILD

Median time to diagnosis among patients with the 3-point blood score who later developed RA-ILD



These times apply only to veterans who eventually developed ILD; they illustrate timing, not absolute risk.

In this veteran cohort, higher biomarker scores were associated with higher odds of existing RA-ILD.

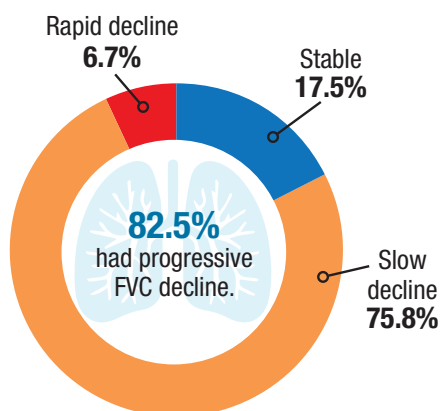
Higher scores were associated with increased risk of developing RA-ILD and shorter time to diagnosis among those who developed ILD.

Hidden Risk in RA-ILD: FVC Trajectories and Outcomes³



Patterns of forced vital capacity (FVC) decline over time are powerful predictors of mortality and respiratory hospitalization in RA-ILD. A retrospective VA cohort of more than 5000 veterans (1999–2021) used longitudinal clustering of FVC change to inform prognosis independent of baseline lung function.

Patterns of FVC Change in RA-ILD

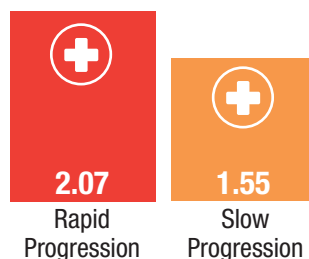


Average Annual FVC Change Patterns

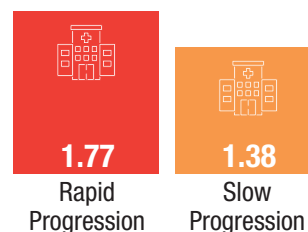


✓ Slower FVC decline still confers risk

Mortality, aHR (vs stable)



Respiratory Hospitalization, aHR



aHR, adjusted hazard ratio



Chronic Pain

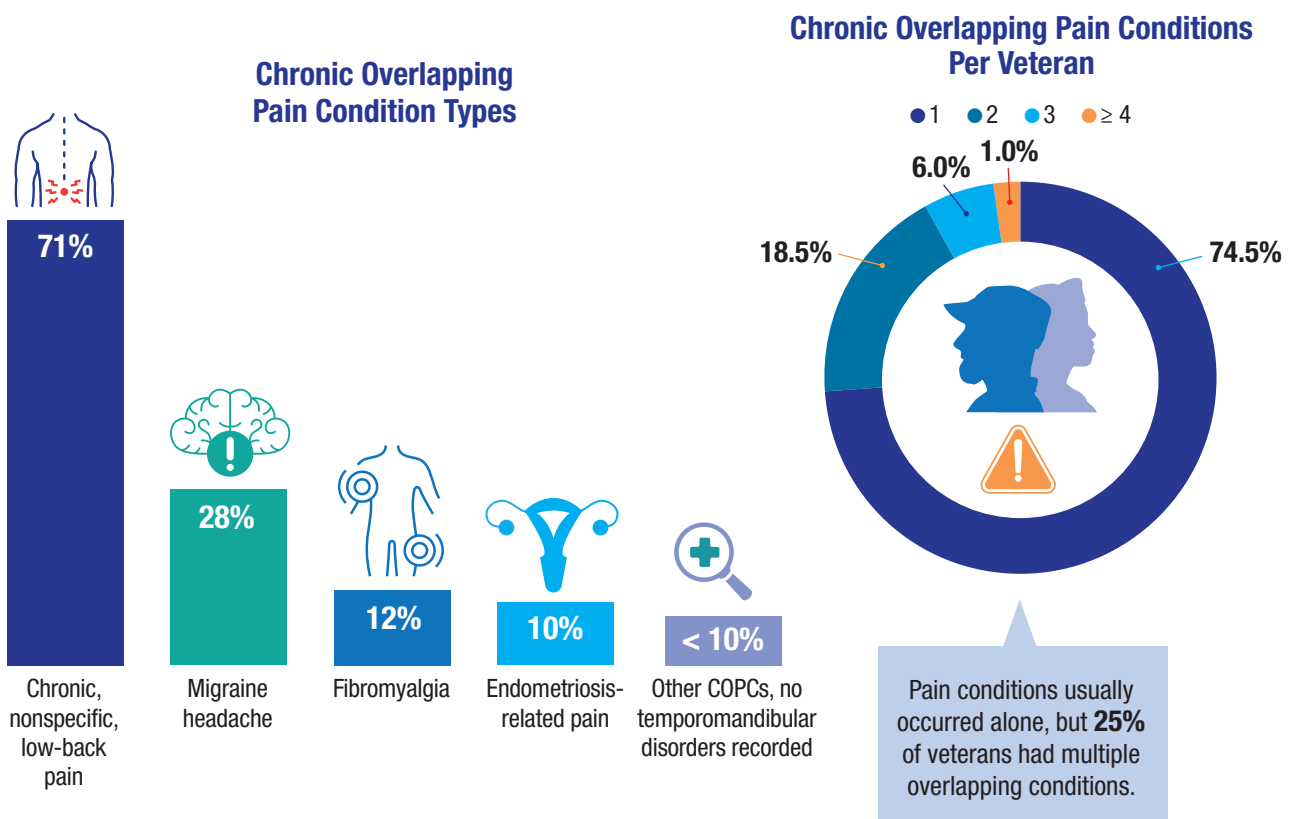
Chronic overlapping pain conditions and chronic back pain are highly prevalent, complex, and biologically distinct problems among US veterans. The LAMP (Learning to Apply Mindfulness to Pain) trial baseline analysis recently demonstrated that veterans with overlapping pain conditions carry a heavier burden of mental health problems, more severe and disruptive pain, and greater use of both medications and nonpharmacologic treatments than veterans with chronic pain who do not have these overlapping conditions.¹

A genetic study in the Million Veteran Program also revealed that chronic back pain has a polygenic architecture, with many genomic regions—some newly discovered—contributing to risk. These variants largely act through brain- and pituitary-related pathways and overlap with other pain and psychiatric traits.² Together, these studies underscore that veterans' chronic pain is driven by intertwined biological and psychosocial factors.

Chronic Overlapping Pain Conditions in Veterans¹



About 800 veterans with chronic pain took place in a pragmatic telehealth trial (LAMP). More than half (54%) had chronic overlapping pain conditions, a nociplastic pain cluster linked to greater mental health burden, worse pain and functioning, and higher treatment use.



Veterans with chronic overlapping pain conditions experienced a more complex and burdensome pain profile — marked by greater mental health comorbidity, higher stress and pain-related distress, and greater use of both medications and integrative therapies.

Sociodemographics of Veterans With Chronic Overlapping Pain Conditions¹



Younger (~ 5 years on average) than veterans without chronic overlapping pain conditions

More common in:



Women



Those with a disability



Those with documented military sexual trauma

No differences observed in race, ethnicity, or rurality.

Those with chronic overlapping pain conditions also have...

1 Higher Mental Health Burden



More mental health diagnoses (any)



Higher risk of PTSD



Higher risk of depressive disorder



Higher risk of sleep disorder

Differences for these diagnoses remained significant after adjusting for age and sex.

2 Different Pain-Related Thought Patterns



Greater pain catastrophizing



Higher perceived stress (especially with multiple COPCs)



Lower pain self efficacy



Similar use of mindfulness skills between groups

3 Different Treatment Patterns



More likely to receive medication



- ✓ Opioid prescriptions
- ✓ Benzodiazepines and concurrent opioid + benzodiazepine therapy



More likely to use nonpharmacologic treatment in the past 3 months

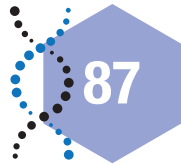


- ✓ Treatments included acupuncture, manipulation, massage, yoga, spinal injections, and opioid medication.
- ✓ Those with 2+ COPCs showed even stronger differences and higher use of Tai Chi/Qigong, exercise, and psychotherapy.

Genetic Architecture of Chronic Back Pain in Veterans²



This large VA genetic study of ~ 550,000, ancestrally diverse veterans in the Million Veteran Program examined inherited contributors to chronic back pain. Many new and previously known DNA regions were linked to chronic back pain, including a prominent signal in the *Forkhead box protein P2 (FOXP2)* gene, with several variants acting through brain and pituitary pathways and some mapping to genes already targeted by existing drugs.

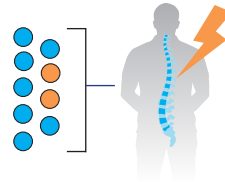


genetic regions (loci) found linked to chronic back pain

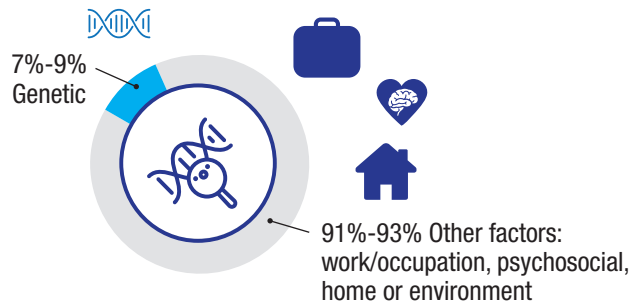


Genetic Findings

Many small-effect variants; risk is spread across many genes rather than a single back pain gene.

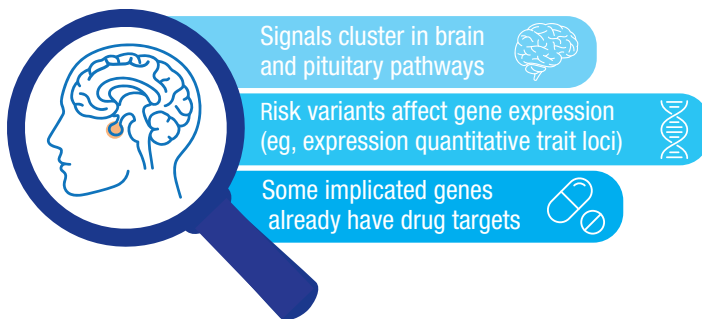


What are contributors to chronic back pain?

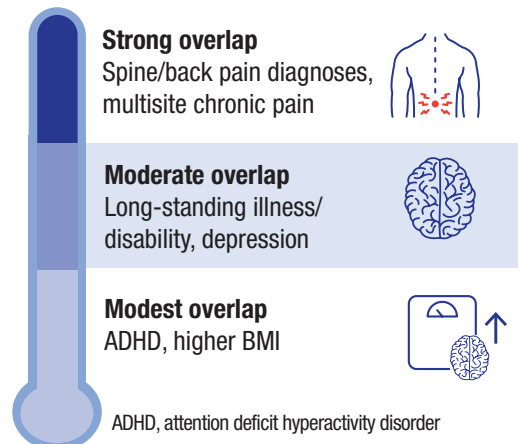


What biology does this point to?

Key new signal: *FOXP2* gene, active in brain pathways



Factors sharing genetic risk with chronic back pain



Takeaways



Chronic back pain has an inherited component spread across many genes.



Findings do not yet support routine genetic testing for back pain.



Findings support a biologically grounded, multifactorial model and point to brain-centered pathways for future therapies.

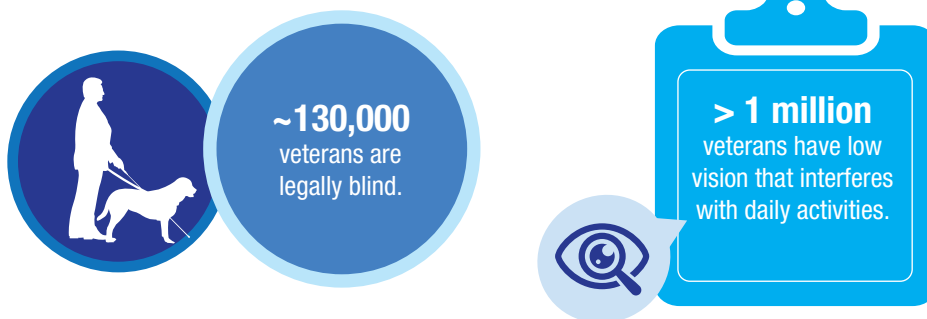


Ophthalmology

Many veterans in the VHA experience significant vision loss, ranging from legal blindness to low vision that impacts daily functioning. The most common causes among those served in Blind Rehabilitation and Visual Impairment programs include age-related macular degeneration, glaucoma, retinal disorders, brain injury (including TBI), and a broad group of other ocular or neurologic conditions such as cataract, optic nerve disease, stroke related visual loss, and corneal or hereditary disorders.^{1,2}

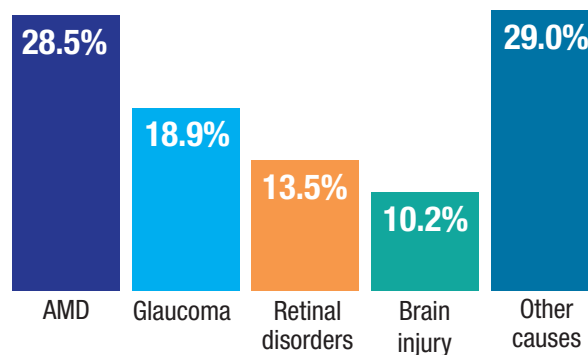
Technology-based Eye Care Services (TECS) is a national VA teleophthalmology program that screens across all US regions and reaches many highly rural veterans, while also providing eyeglasses, managing minor eye conditions such as dry eye, and facilitating referral to the National Subspecialty Ophthalmology Network, which delivers remote subspecialty services including glaucoma and retinal care.^{3,4} A TECS retrospective study showed that vision-threatening disease is more common in veterans who are older, non-Hispanic Black, unhoused, socially vulnerable, and those who have comorbidities — especially those who are rarely seen in primary care.^{3,4}

Estimates of Vision Impairment in the VHA^{1,2}



Leading Causes of Vision Loss

Based on veterans in the Blind Rehabilitation Service (BRS) and Visual Impairment Services Team (VIST) population



AMD, age-related macular degeneration



Retinal disorders include diabetic retinopathy, retinal artery occlusion, and retinal vein occlusion. “Other causes” is a residual category in the BRS/VIST data and does not specify diagnoses; in VA vision loss reporting, this category typically includes cataract, optic nerve/neurologic causes, stroke-related visual loss, corneal disease, hereditary and congenital disorders, and miscellaneous or unspecified causes.

Technology-Based Eye Care Services in the VHA^{3,4}



A national VA study of TECS included more than 21,000 veterans seen in 2021. The program showed high patient satisfaction and provided earlier detection of vision-threatening eye disease (VTED).

TECS Reach



64.7

Average age



10.9%

Women



49.6%

Rural residence



2.5%

Highly rural



3-4

Average comorbidities

Overall Eye Disease Prevalence

Cataracts: **47.8%**

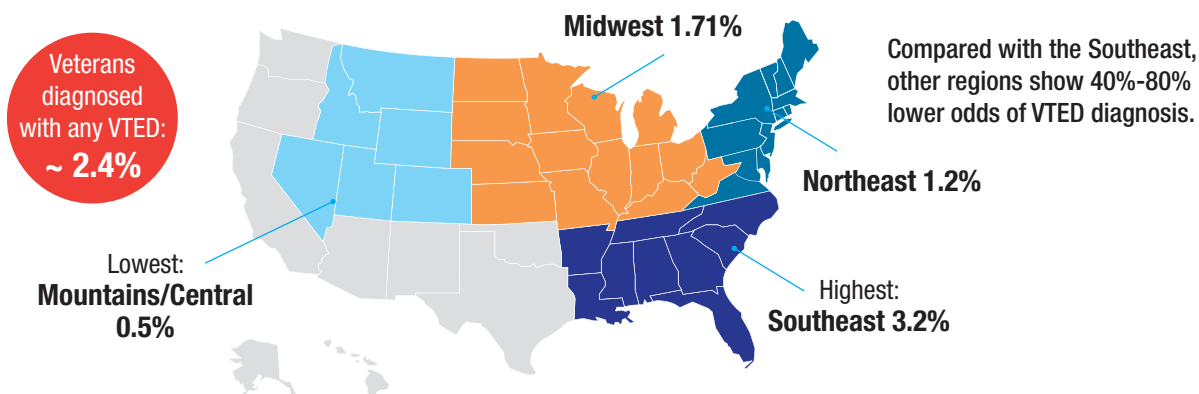
Glaucoma: **17.6%**

DR: **6.3%**

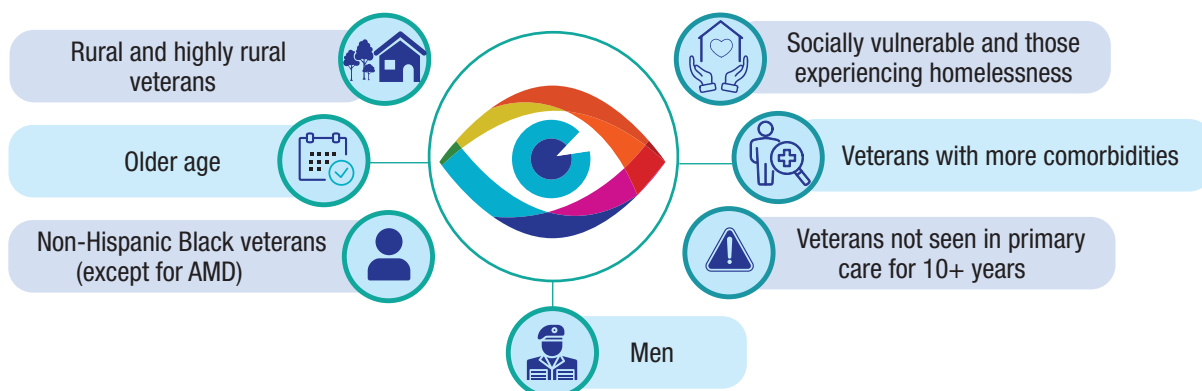
AMD: **5.8%**

DR, diabetic retinopathy

VTED Relative Regional Prevalence



Those at Highest Risk for VTED





Kidney Disease

US adults with prior military service are 17% more likely to have chronic kidney disease (CKD) than civilians, with risk varying across service era and demographic subgroups.¹ Social factors also affect outcomes; veterans experiencing homelessness have a 15% higher likelihood of developing end-stage kidney disease.² CKD can also contribute to worse outcomes in other health conditions, such as heart failure (HF) and diabetes mellitus type 2, increasing mortality, compared with those who have normal kidney function.^{3,4}

New VA/DoD clinical practice guidelines emphasize primary care's expanded role in the management of CKD, along with the inclusion of newer treatments in care.⁵ The VA has implemented telenephrology programs, following a hub-and-spoke model to reach veterans in areas without nephrology specialists.⁶

VA Telenephrology Program Outcomes⁶



A study of more than 11,000 veterans with CKD, refractory and resistant hypertension, and electrolyte disorders assessed differences in outcomes of patients treated through telenephrology services versus primary care providers from 2021 to 2024.

Veterans who used telenephrology services...



Were younger: 69 vs 74 years



Had more advanced CKD:
eGFR 47 vs 55 mL/min/1.73m²

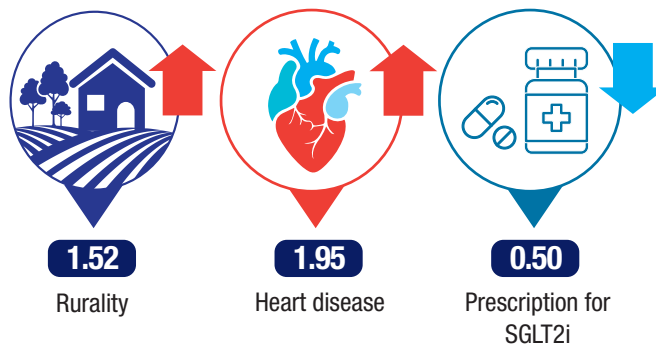


Had lower mortality: 38% lower

...compared with veterans who used primary care providers.

Factors That Affect Mortality in Telenephrology Group

Displayed as hazard ratios (HR)



eGFR, estimated glomerular filtration rate; SGLT2i, sodium glucose transporter 2 inhibitors

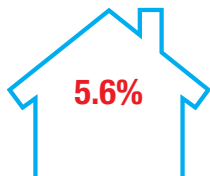


Patients in the telenephrology group were also more likely to start guideline-directed therapies and continue to be receiving them at the end of the study compared to patients in the primary care provider group; for example, this difference was seen for SGLT2i (38% vs 28%) and angiotensin-converting enzyme inhibitors/angiotensin II receptor blockers (71% vs 59%) at the end of the study, as well as for other treatments. Mortality was lower in the telenephrology group even after accounting for medication use and other cofounders (HR = 0.85).

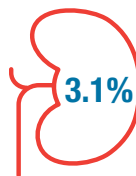
Homelessness and Risk of End-Stage Kidney Disease²



A study of over 830,000 veterans assessed the effect of a history of homelessness on risk for end-stage kidney disease and mortality using retrospective data from 2005 to 2017. The study included veterans with stage 3 to 5 CKD using VHA healthcare. Homelessness status was defined based on a record of housing instability at any point in the 2 years prior to CKD diagnosis. End-stage kidney disease was defined by the initiation of dialysis or kidney transplant.

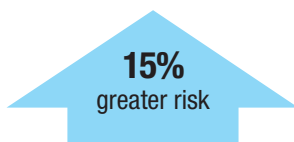


of the sample
had experienced
homelessness.

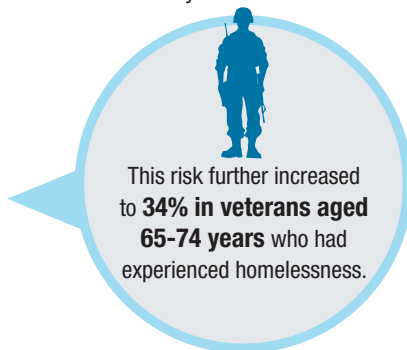


of the sample
developed end-stage
kidney disease.

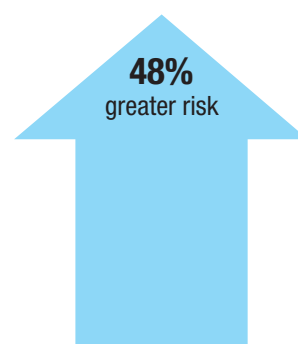
Risk of End-Stage Kidney Disease



Compared with veterans with no
history of homelessness



Risk of All-Cause Death

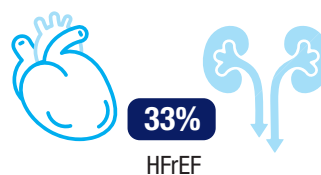
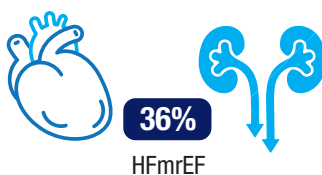
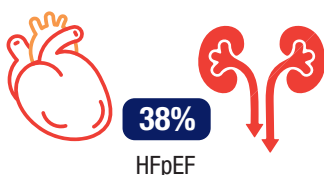


Mortality and Hospitalization in Patients With HF and CKD³

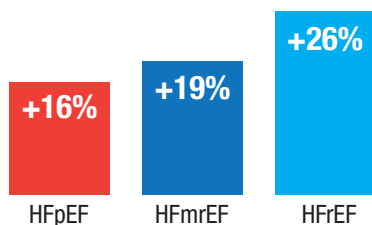


A study of 365,000 veterans assessed the effect of CKD on outcomes in those with preserved, mildly reduced, and reduced ejection fraction HF (HfPEF, HfMrEF, HfFrEF). Normal kidney function was defined as 2 measurements > 90 days apart of eGFR ≥ 60 mL/min/1.73m², without eGFR < 60 mL/min/1.73m² or albuminuria for 3 years before HF. Patients were categorized as having HfPEF by EF $\geq 50\%$, HfMrEF by EF 41%-49%, and HfFrEF by EF $\leq 40\%$.

Percentage with CKD



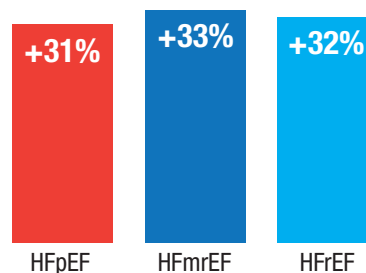
Mortality in Patients With CKD

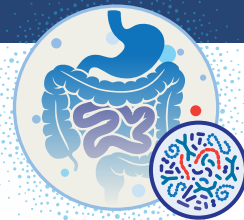


Compared with veterans with
normal kidney function



Risk of HF Hospitalization in Patients With CKD





Gastroenterology

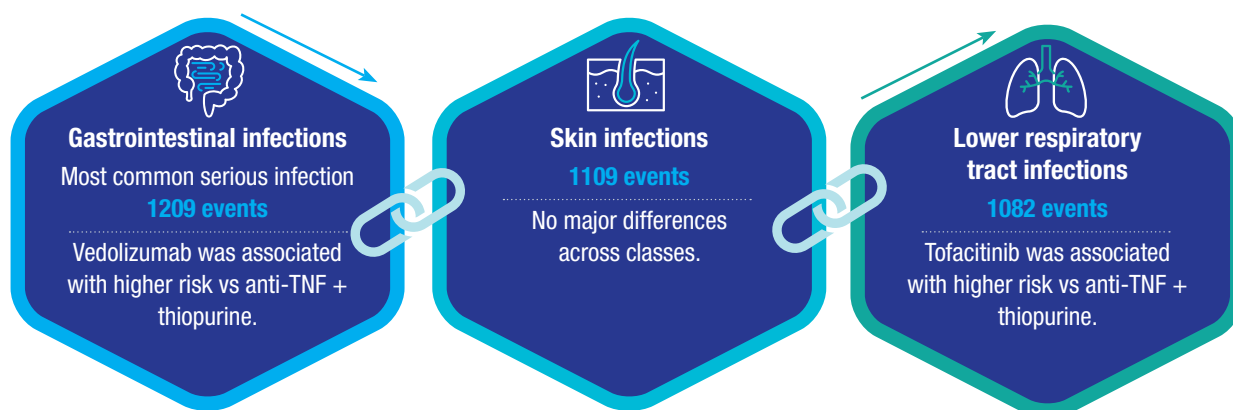
Across recent VA inflammatory bowel disease (IBD) data, several patterns have emerged. Serious infections requiring hospitalization remain relatively uncommon in veterans and outcomes appear broadly similar across contemporary biologic and targeted therapies, with risk increased by age, cardiopulmonary comorbidities, and concurrent steroid or opioid use than to specific drug classes.¹ Anemia in IBD consistently appears as a common, often persistent condition, linked to greater use of hospital and steroid-based care, particularly among veterans with higher comorbidity burden and those who smoke.² Likewise, vitamin D emerges as a modifiable factor: deficiency is frequently observed, while supplementation is repeatedly associated with fewer flares, lower acute care utilization, and gradual, dose-related improvements in serum vitamin D levels.³

Serious Infection Outcomes Across IBD Drug Classes¹



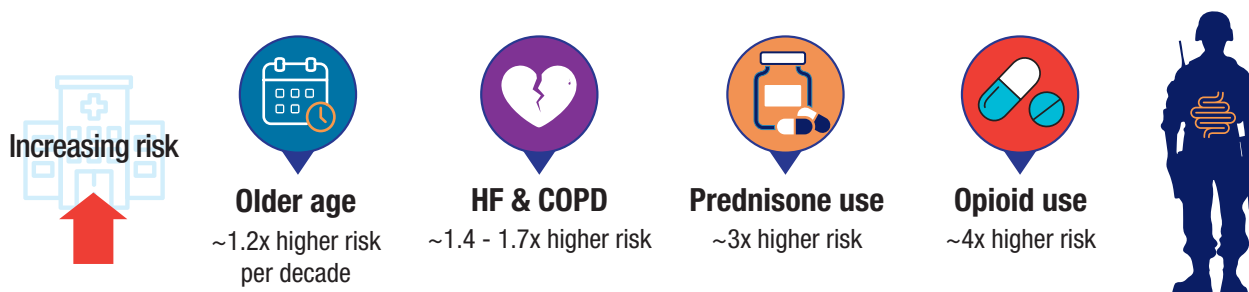
More than 14,500 veterans with Crohn disease or ulcerative colitis starting anti-tumor necrosis factor (TNF) inhibitor combinations, anti-TNF monotherapy, vedolizumab, ustekinumab, or tofacitinib were followed for serious infections requiring hospitalization.

Site-Specific Infection Signals



Gastrointestinal infections were a key driver of differences; when excluded, medication-class differences in overall infection hospitalization attenuated.

Other Risk Factors For Serious Infection



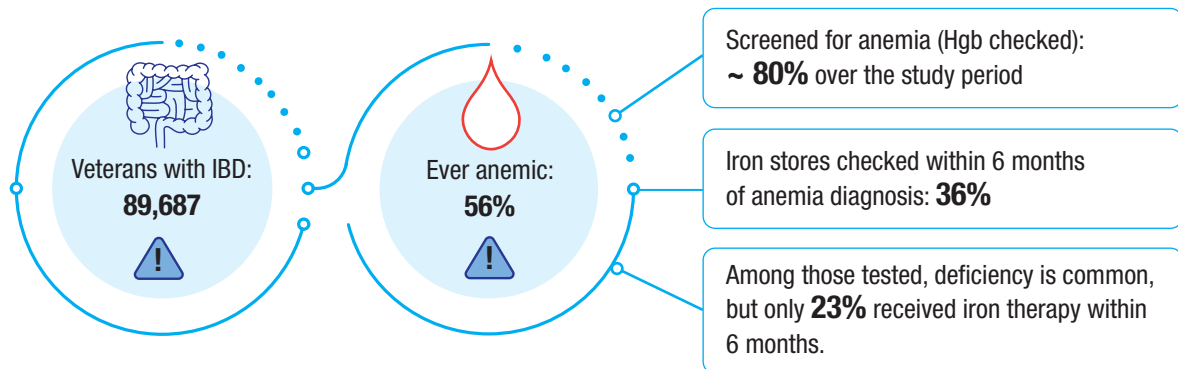
Across this VA cohort the rates of infection requiring hospitalization after exposure to IBD medications were low. Vedolizumab, ustekinumab, and tofacitinib showed broadly similar rates of infection-related hospitalization compared with anti-TNF inhibitor plus thiopurine combination therapy.

Silent Burden: Anemia Management in Veterans With IBD²



In a national VHA cohort of about 90,000 veterans with Crohn disease or ulcerative colitis, anemia care practices and downstream outcomes were evaluated over 2 decades. The study focused on how often anemia and iron deficiency were recognized and treated, and how anemia related to hospitalizations, steroid use, and IBD-related surgery.

Anemia Frequency and Treatment Patterns



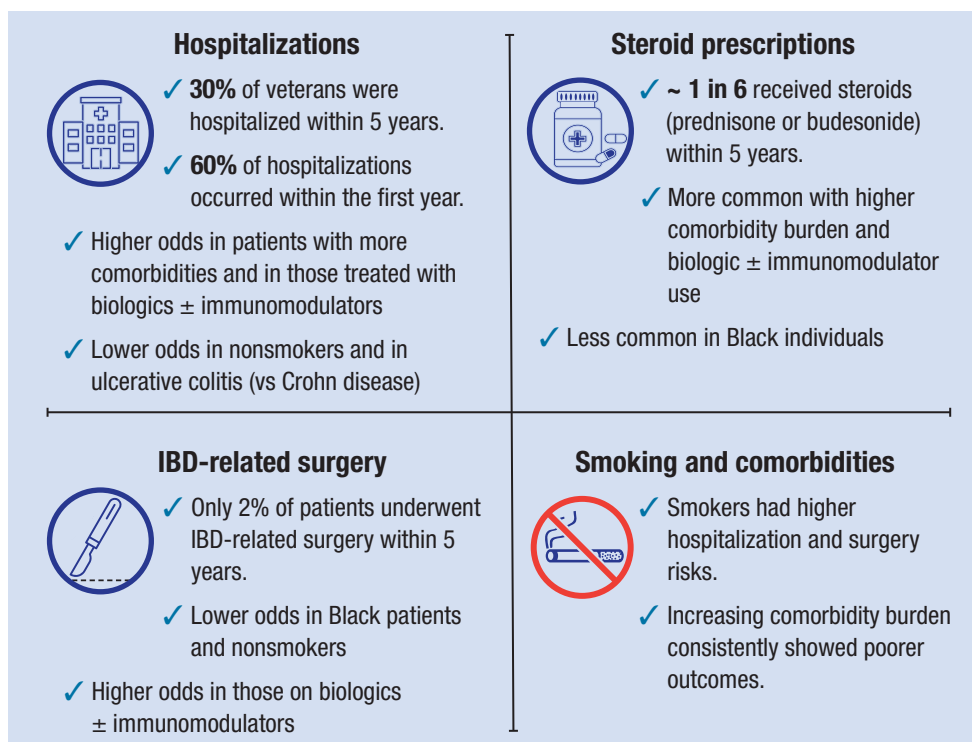
Hemoglobin and Anemia Resolution



Most anemic patients with IBD had **hemoglobin ≥ 10 g/dL**.

Only 19% achieved hemoglobin normalization within 12 months of anemia diagnosis.

5-Year Outcomes



Anemia was common among veterans with IBD, yet iron status was often not evaluated, treatment for iron deficiency was infrequent, and anemia rarely normalized within a year. In this cohort, anemia and higher comorbidity burden were linked to more hospitalizations, steroid use, and surgery.

Vitamin D and IBD: Fewer Flares, Less Acute Care³



A national VA study followed over 5000 veterans with IBD who had a vitamin D level checked between 2000 and 2023. Using quasi-experimental methods, the study compared veterans who did vs did not start vitamin D within 3 months to see how supplementation affected steroid use, emergency department (ED) visits, and hospitalizations.

Vitamin D Deficiency: Common in VA IBD



Median vitamin D: Low, **23 ng/mL**
(at first test)



Only ~ **4 in 10** started vitamin D
after testing.



Many veterans with IBD are undertreated for low vitamin D.

Vitamin D Supplement Effect on IBD Flares and Acute Events



ED visits
34%

fewer IBD-related
ED visits with vitamin D

2.2% absolute reduction



Hospitalizations
53%

fewer IBD-related
hospitalizations with vitamin D

2.6% absolute reduction



Steroids
25%

fewer steroid prescriptions
(trend) with vitamin D

1.3% absolute reduction



Supplemented veterans had fewer flares severe enough to need steroids, ED care, or hospitalization.

Benefits in Crohn Disease and Ulcerative Colitis



Crohn disease

- Fewer ED visits
- Fewer hospitalizations
- Steroid use unchanged



Ulcerative colitis

- Fewer ED visits
- Fewer hospitalizations
- Less steroid use

Supplementation Improved Vitamin D Levels

Bigger increases in serum vitamin D came with supplementation, especially at higher doses.

+0.9 ng/mL

No vitamin D

+6.0 ng/mL

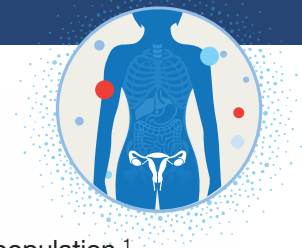
Low-dose
vitamin D

+8.0 ng/mL

Higher-dose
vitamin D



Low vitamin D levels in this IBD cohort were associated with higher use of acute care, while supplementation was linked to fewer ED visits, hospitalizations, and steroid prescriptions. Prospective studies are needed to define optimal dosing strategies and target vitamin D levels.



Women's Health

Women veterans are the fastest-growing population, making up 11.3% of the veteran population.¹

Women veterans face unique health-related challenges, specifically related to reproductive and mental health care.^{2,3} Even with equitable access to reproductive healthcare in the VA, racial and ethnic disparities exist.^{1,4} This impacts the estimated 43% of women veterans who belong to a racial or ethnic minority.^{1,4} The VA has created programs to help alleviate these disparities by using doulas in community-based care, which has garnered high levels of satisfaction from veterans.⁵ Other subgroups, such as women veterans with specific comorbidities like lupus and rheumatoid arthritis, face adverse maternal outcomes.⁶ Female veterans have also been found to have higher rates of military sexual trauma (MST) than male veterans.⁷ MST is related to several adverse health-related outcomes, such as gynecologic cancers.⁸ For older women veterans, menopausal hormonal replacement therapy has been shown to pose cardiovascular risks.⁹

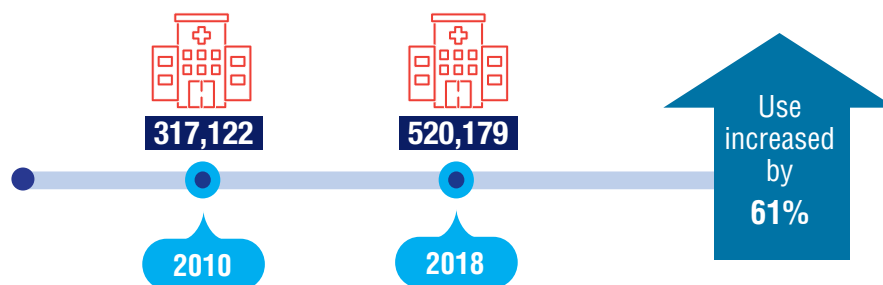
Reproductive and Sexual Health Services at the VA²



A 2025 study reported VA data from more than **800,000 women veterans** in 2010 and 2018 to assess the change in prevalence of reproductive and sexual health diagnoses.

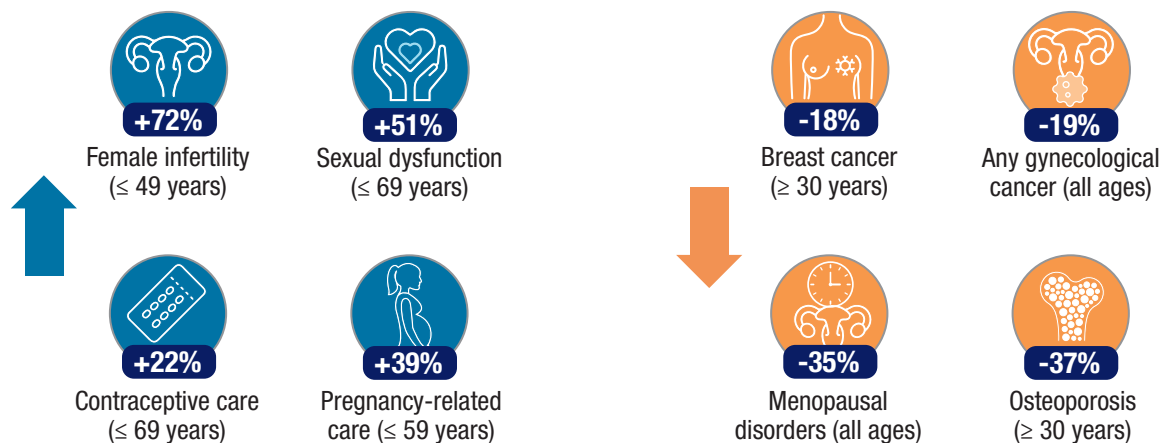
Use of VA Reproductive and Sexual Health Services

Number of women veterans



Change in Reproductive and Sexual Health Diagnoses

Age-adjusted percent difference in actual vs expected cases in 2018

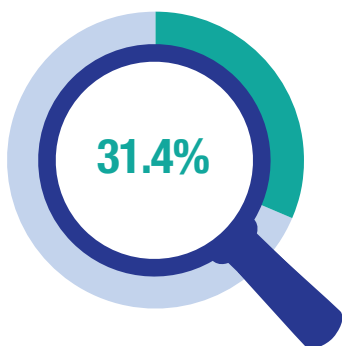


MST and Gynecological Cancer⁸



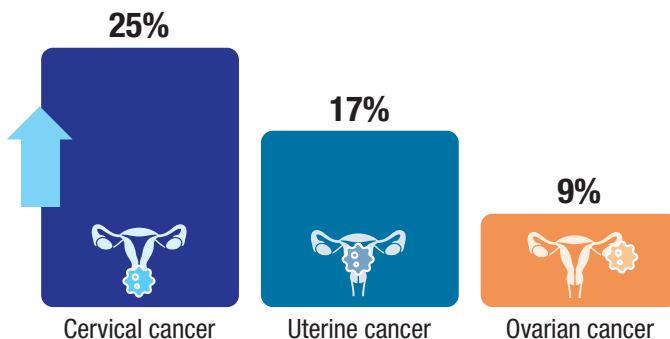
A **retrospective cohort study** of over 775,000 women veterans assessed whether a history of military sexual trauma (MST) is associated with gynecologic cancers in those who received care at the VHA from 2001 to 2023.

Women Veterans With Positive MST Screen

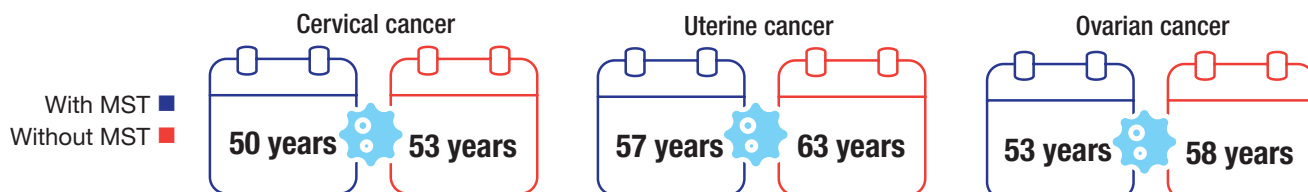


Increased Risk for Gynecological Cancers

In women veterans with MST; based on model adjusted for demographics, health behaviors, and clinical conditions



Average Age at Diagnosis of Gynecological Cancers

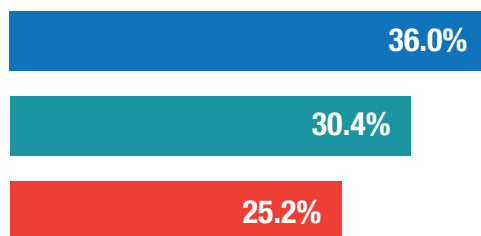


Maternal Morbidity in Veterans With Lupus and Rheumatoid Arthritis⁶

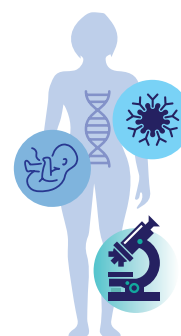
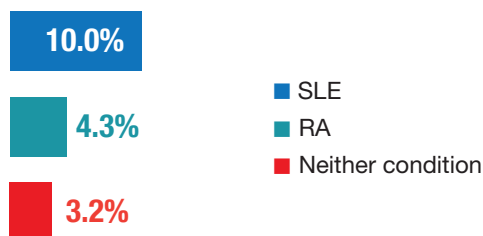


Researchers assessed maternal morbidity in more than 29,000 veterans aged 18 to 45 years who were diagnosed with systemic lupus erythematosus (SLE), rheumatoid arthritis (RA), or neither condition. Nonlive births included stillbirth, ectopic pregnancy, and spontaneous abortion. Severe maternal mortality was calculated using CDC definitions and included during and up to 42 days after pregnancy.

Percentage of Nonlive Births



Severe Maternal Morbidity Rate

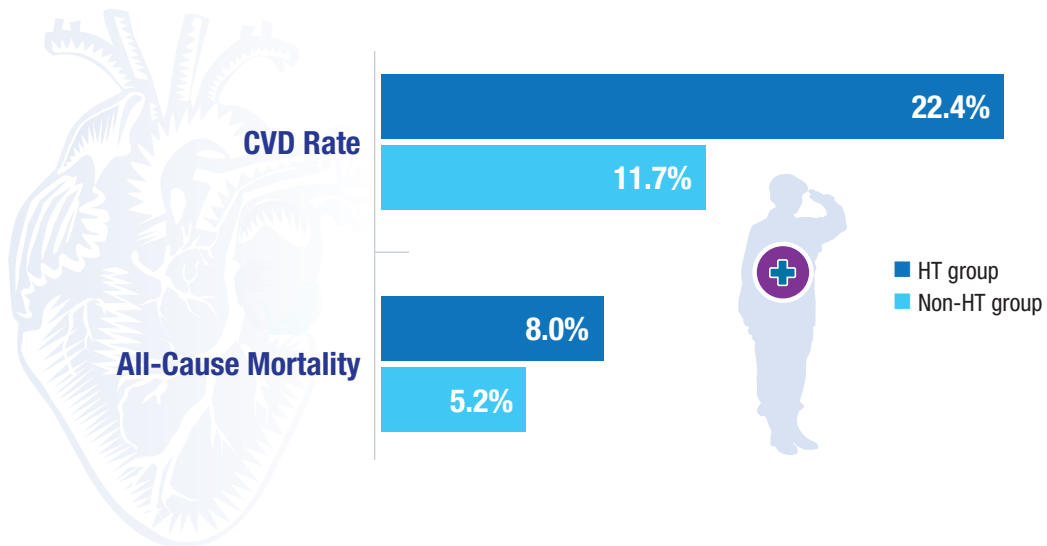


Severe maternal morbidity is well documented in SLE. Rates of maternal morbidity in this sample may have been further compounded by a high number of medical and psychiatric comorbidities (renal disease, hypertension, depression, etc) and a high representation of Black veterans (approximately 50%).

Menopausal HT and CVD in Women Veterans⁹



A study of women veterans aged 45 years and older (n = 241,943) investigated the association between menopausal hormone therapy (HT) and later CVD from 2000 to 2017. HT was defined as any estrogen product or combined estrogen-progestin, while CVD was defined as new onset of any of the following conditions: ischemic heart disease (IHD), stroke, heart failure (HF), atrial fibrillation/flutter (AF), aortic stenosis (AS), pulmonary hypertension (PHTN), venous thromboembolism (VTE), and peripheral arterial disease (PAD).



HT was associated with increased risk of....

Displayed as hazard ratios



1.74

Overall
CVD



2.05

IHD



2.52

Stroke



1.61

HF



1.50

AF



2.12

AS



1.44

PHTN



1.74

PAD



1.61

VTE



1.25

Death



The increased risk of CVD was seen across all ages of HT initiation in this study.⁹ Conversely, another recent analysis showed that HT did not significantly affect CVD risk in those aged 50 to 59 years.¹⁰ More studies are needed to better assess this relationship.



Diabetes

An estimated 20%-25% of US veterans have diabetes, and this rate has been rising.^{1,2} Risk factors for type 2 diabetes (T2D) include obesity, serious mental illnesses, and social determinants of health (SDOH).^{1,3,4} Veterans having three or more SDOH factors, such as food or transportation insecurity, have twice the odds of developing T2D.⁴

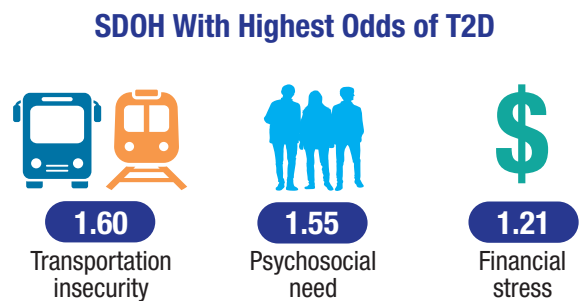
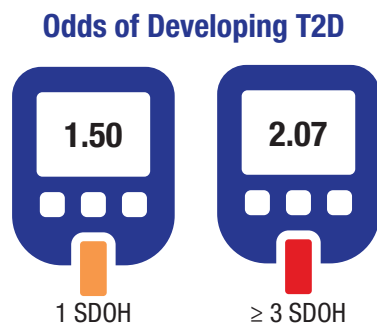
Treatment for T2D includes metformin, sulfonylureas, insulin, and other medications, such as glucagon-like peptide-1 (GLP-1) receptor agonists (RAs) and sodium-glucose cotransporter-2 (SGLT-2) inhibitors.^{5,6} GLP-1 RAs have been shown in early studies to reduce the risk of incident substance use disorders in veterans with diabetes, and demonstrated lower all-cause mortality compared with insulin.^{7,8} While newer therapies like GLP-1 RAs offer mortality and comorbidity benefits for veterans, their clinical utility remains balanced against gastrointestinal adverse events.^{7,8}

Social Determinants of Health and Diabetes in Veterans⁴

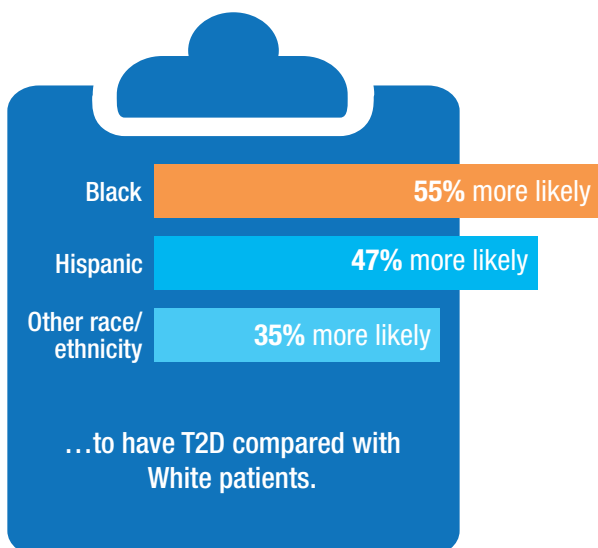


A recent retrospective cohort study of more than 6.5 million VHA patients assessed the effects of SDOH on T2D incidence from 2008 to 2019. Patients did not have T2D or comorbidities at baseline. SDOH included social isolation, financial stress, employment issues, food insecurity, transportation insecurity, housing instability, and psychosocial needs.

Displayed as odds ratios



Racial and Ethnic Disparities in T2D



Black patients were more likely to have ≥ 3 SDOH compared with White patients (8.8% vs 3.8%).

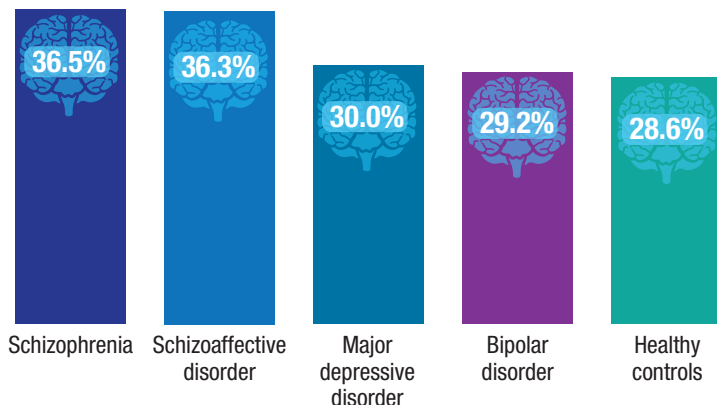


T2D Risk in Veterans With Serious Mental Illness³

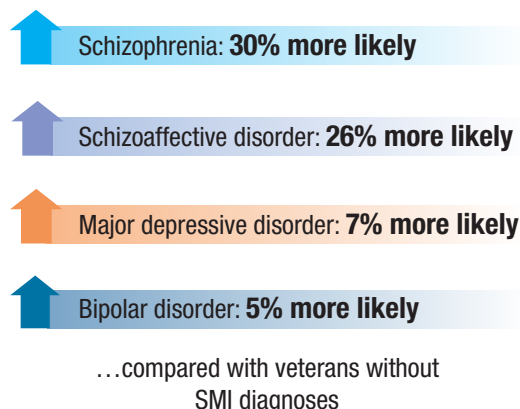


A study of nearly **544,000 veterans** assessed the risk of T2D in those with serious mental illness (SMI) diagnoses from 2009 to 2020.

Prevalence of T2D by Diagnosis



Odds of Developing T2D



Psychiatric medications also affected the likelihood of developing T2D, with exposure to selective serotonin reuptake inhibitors and mood stabilizers, excluding lithium, increasing odds by more than twofold.

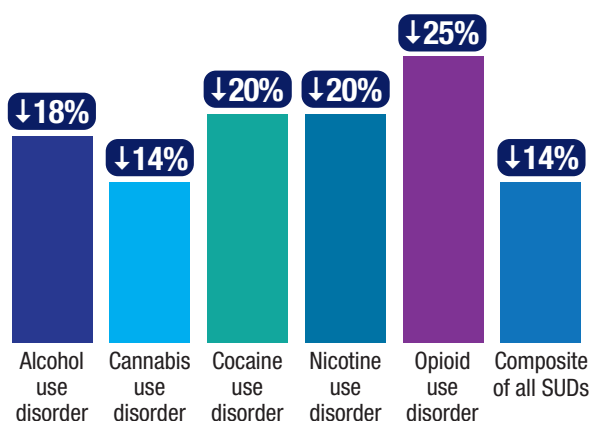
Medication Use and SUDs in Veterans With T2D⁷



A study of over **606,000 veterans** with T2D assessed the effect of GLP-1 RAs and SGLT-2 inhibitors on risk of substance use disorders (SUDs). One part of the study analyzed risk of incident SUDs in those without history, while another part of the study looked at SUD-related adverse events in those with preexisting SUDs.

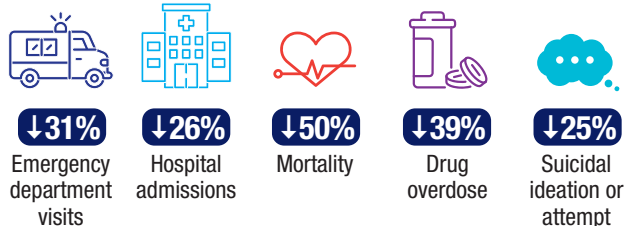
SUD Risk Reduction With GLP-1 RAs

Compared with those on SGLT-2 inhibitors



SUD-Related Adverse Event Risk Reduction With GLP-1 RAs

Compared with those on SGLT-2 inhibitors

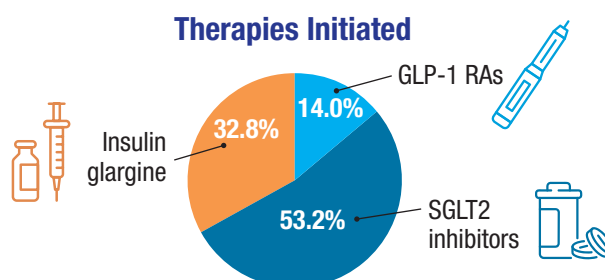


Previous studies have shown that GLP-1 RAs reduced incident alcohol and tobacco use disorders.^{9,10} In this study, GLP-1 RA use, in veterans with T2D, reduced risk of SUDs compared with SGLT-2 inhibitor use.⁷ In those with preexisting SUDs, SUD-related adverse events were also less likely compared with those on SGLT-2 inhibitors.⁷

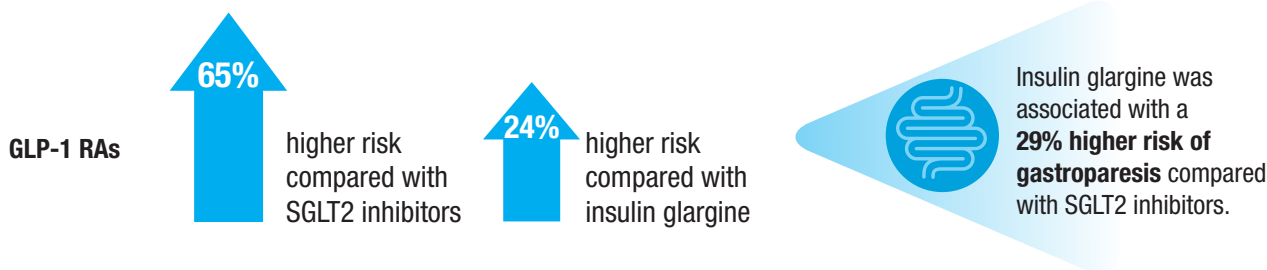
Gastrointestinal Adverse Effects of Diabetes Treatments⁸



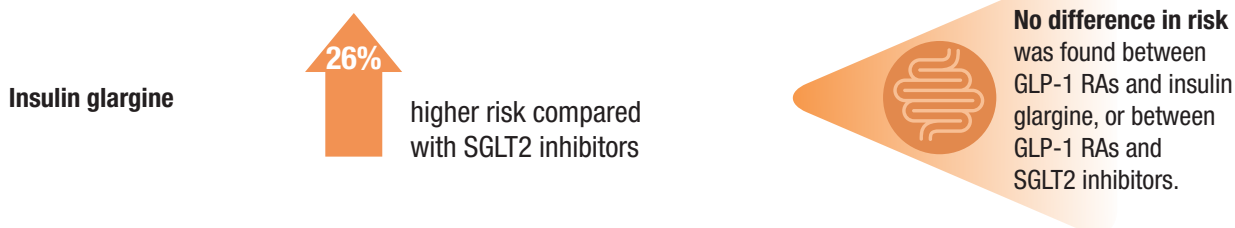
Gastrointestinal adverse effects were assessed in 141,080 veterans with T2D who started GLP-1 RAs, SGLT2 inhibitors, or insulin glargine between 2018 and 2021.



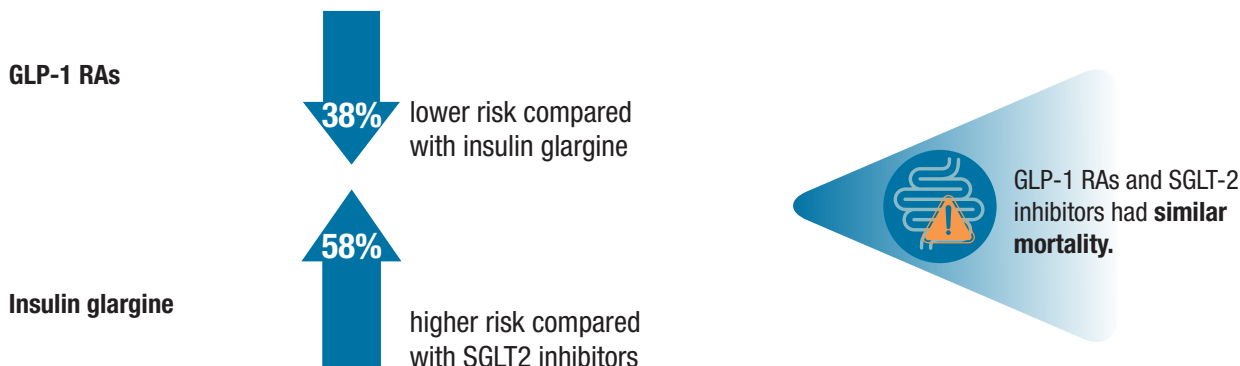
Gastroparesis Risk



Intestinal Obstruction Risk



All-Cause Mortality



Similar risk for gallstones, acute cholecystitis, and pancreatitis was seen in the three treatment groups. SGLT2 inhibitors had a lower risk of gastroparesis and similar all-cause mortality compared with GLP-1 RAs.

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