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Veterans Health Administration
VISN 2 MIRECC & VISN 17 Center of Excellence
*Transitioning Servicemember/Veteran
And Suicide Prevention Center (TASC)*



Predictive Analytics to Reduce Suicide Attempts for Transitioning Veterans

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Suicide Among Veterans (18 to 34 years old)

o **Suicide rate:** Veterans aged 18 to 34 years old (VA, 2021)

-Almost **doubled** since 2001 (24/100k to 44/100k)

-**1.65 times higher** than older veterans (35+ yo)

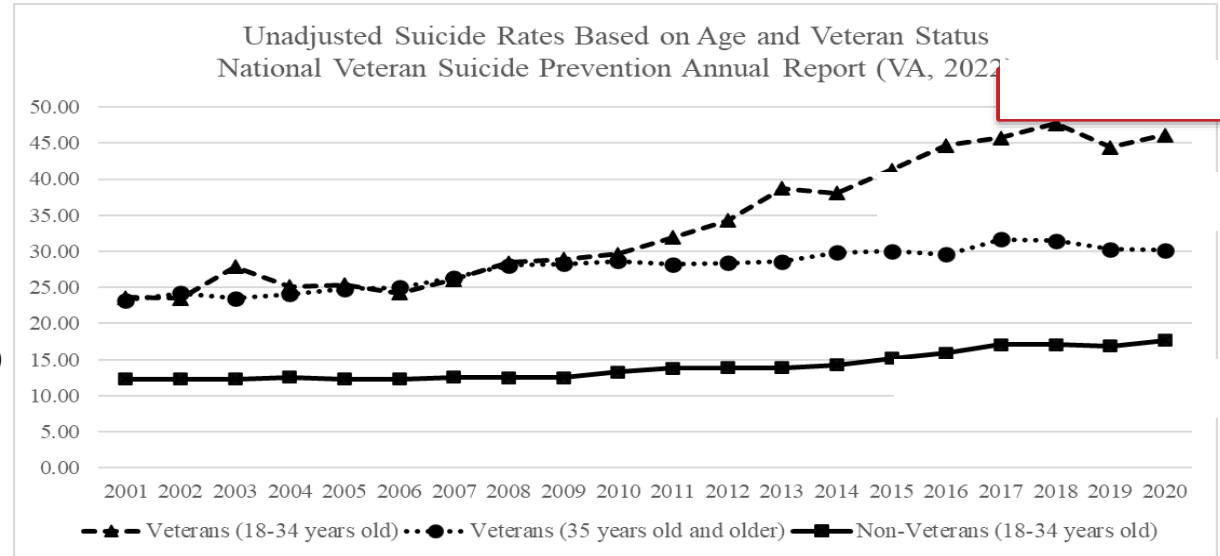
-**2.73 times higher** than non-veterans of the same age

o **Deadly Gap** (Sokol et al. 2021; Geraci et al. 2020)

-**Highest Risk:** 3x risk first 1 year post-discharge (Shen et al, 2016; Ravindran et al., 2020)

o **Not using VA care**

-Only **24%** of active-duty Servicemembers (SMs) enroll in VA care during 1st year after the military (Hannon Act, 2021)

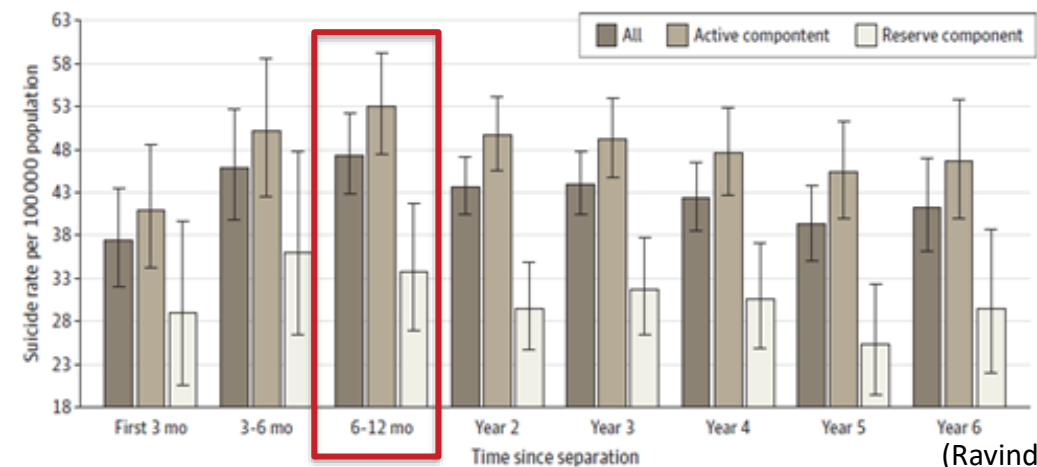


o **VA's Response**

-Public health approach:

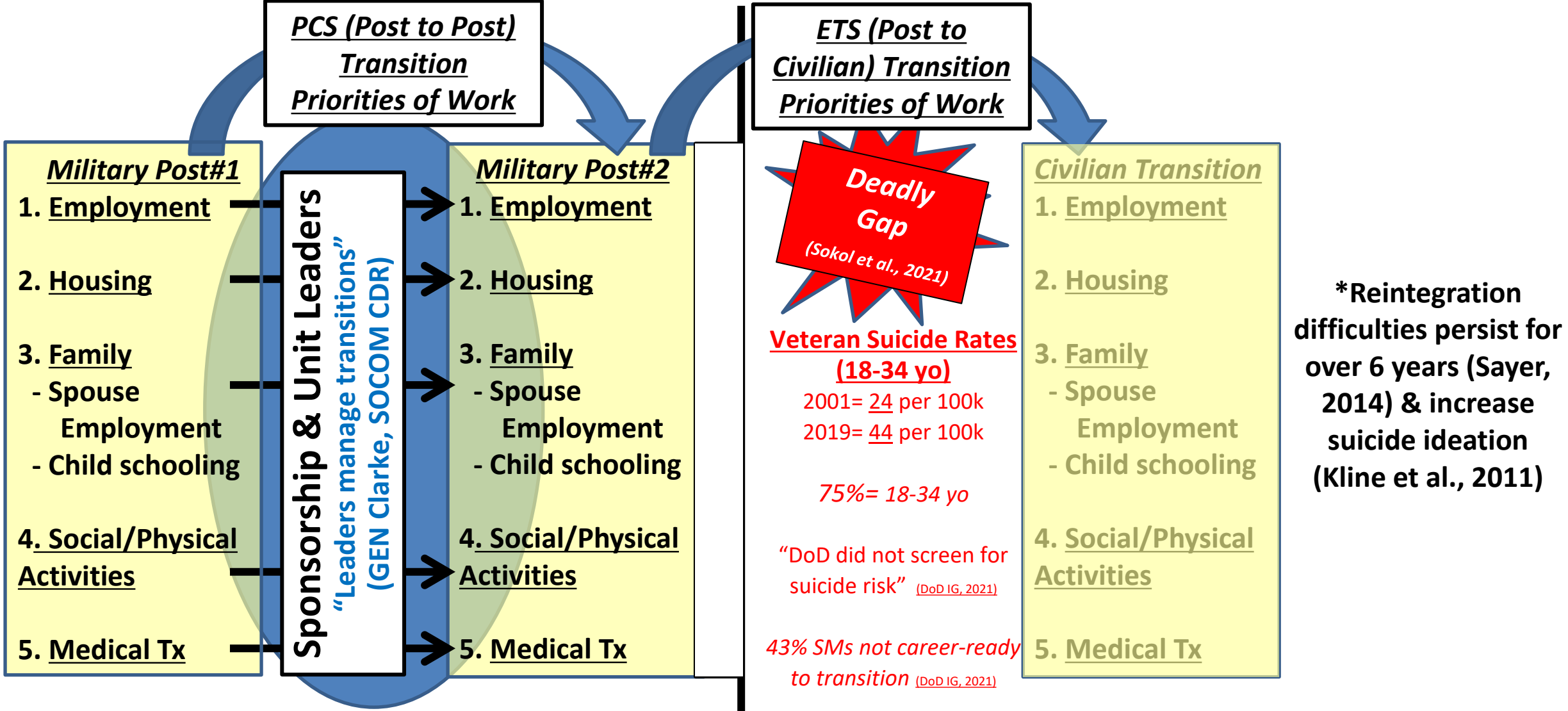
*“The goal is to implement more **universal and preventive interventions** that **are upstream to address social determinants of health and risk factors for suicide** (e.g., lack of connectedness, financial concerns/ unemployment, relationship distress)” (Carroll et al. 2020).*

Figure 2. Suicide Rates Conditioned on Time Since Separation by Component With 95% CIs



(Ravindran et al., 2020)

Problem- The Deadly Gap



Comparing Two Veteran Transitions

Transition as Usual

Veteran: 30s y/o Asian-American, woman, single,
10 years of military service

Military Discharge: September 2022

Prescribed DoD psychotropic meds & attended
7 mental health appts in last year of military service

Jul 2022 - DoD Psychiatrist Note:

“The SM will *try to get her medication from the VA after she gets out of the Army...*The SM is *anxious about what the future holds for her*, but she is excited as well. I will write for an 8w supply of her medication today...”

Sep 2022 - Veteran calls local VAMC:

VA call center/admin enters note from her call, “*This is my first appointment after getting out of active duty and need to continue getting medication...Please have someone call me to make my first appointment.*”

No follow-up from local VAMC



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DoD STARRS analysis shows that about 1% of Servicemembers will have a suicide attempt within the first-year post-military discharge (Kearns et al., 2023)



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Veteran Sponsorship Initiative

- The **Veteran Sponsorship Initiative (VSI)** is an innovative, **evidence-based** program (**reintegration difficulties** and **social support**) designed to reduce suicide risk factors of Servicemembers going through the military-to-civilian transition.
 - Under VSI, Servicemembers are paired 1:1 with VA-trained, volunteer, **community-based peers who are managed by vetted VHA community partners** who support them during the transition
 - VSI connects Servicemembers to VA healthcare and benefits as well as community services **based on suicide risk-level**
-
- Jointly funded by:
 - VISN 17 Heart of Texas Network
 - VISN 17 Center of Excellence for Research on Returning War Veterans
 - VISN 2 MIRECC (Bronx VAMC)
 - Bronx VAMC
 - VHA National Center for Healthcare Advancement And Partnerships
 - VHA OMHSP Demonstration Project Grant
 - VHA HSRD/QUERI Grant
 - Suicide Prevention Research Impact Network Grant (VA HSRD/CSR)



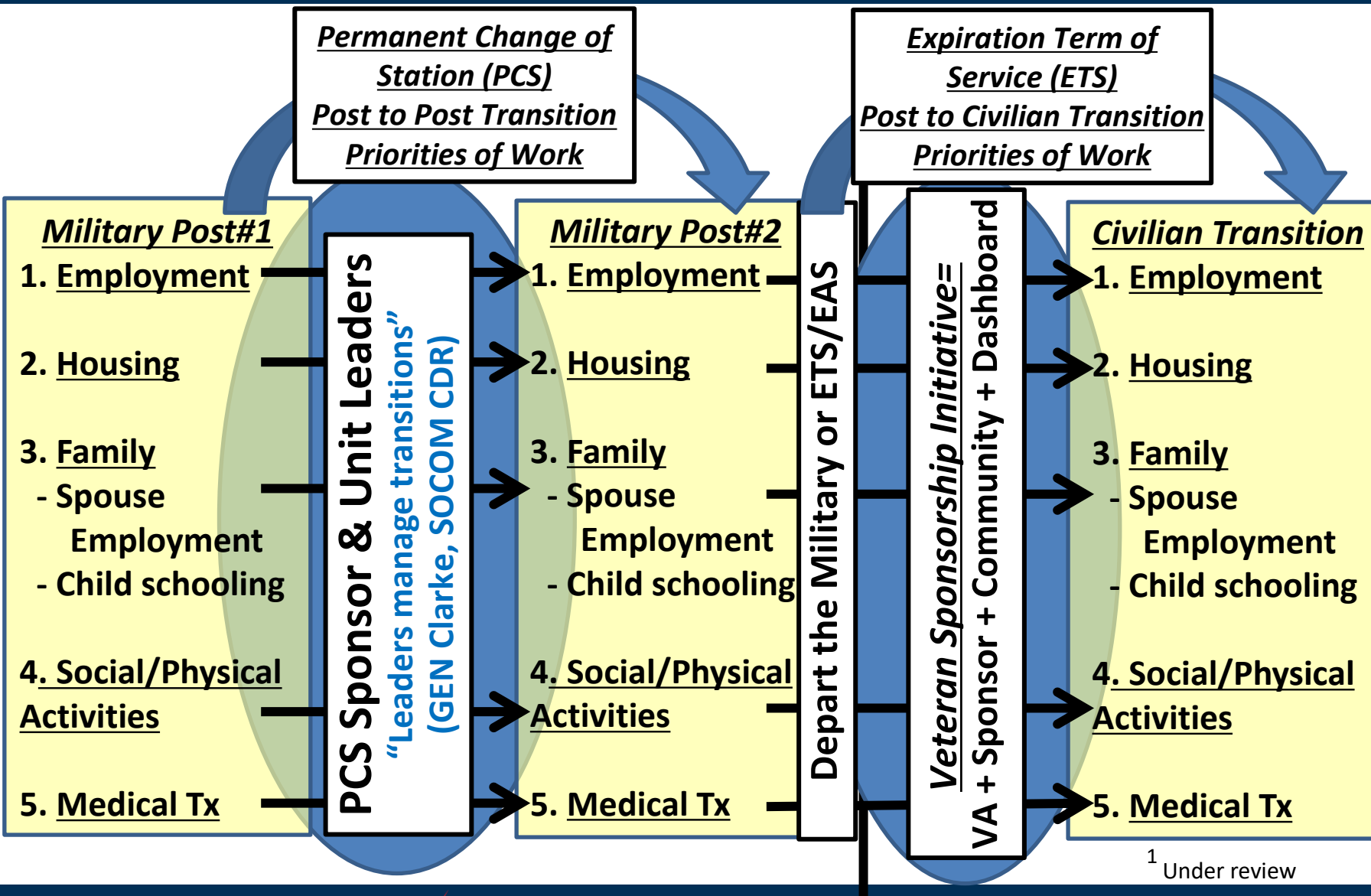
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Bridging the Gap: Veteran Sponsorship Initiative



¹ Under review

Evidence-based VSI (Study/Journal)

-RCT results (2014-18)/Psych Services

**Added value of sponsorship*

-VSI feasibility (2020-22)/Psych Services¹

**Increase in VA regist & VA Pri Care*

**Reduction in suicide risk & depression*

-VISN 17 & HSRD/QUERI Merit Partnered Evaluation Initiative (2021-24)/Implement.

Science

**Phased rollout across Texas*

-VSI+ planning award (VA SPRINT)

**Add precision medicine approach*

-Bronx VAMC Transitioning Veteran Clinic Pilot (2022)/General Internal Medicine

-VA/DoD Joint Incentive Fund and/or VHA OMHSP Grant (2024-2026)

**Proposals: VSI+ expansion*



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Comparing Two Veteran Transitions

Transition as Usual



Veteran: 30s y/o Asian-American, woman, single, 10 years of military service

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No follow-up from local VAMC

Veteran Sponsorship Initiative



Veteran: 20s y/o African-American, man, married, one child (newborn); 5 years of military service, two deployments

Military Discharge: December 2022

Prescribed DoD psychotropic meds & attended **10 mental health appts** in last year of military service

Paired with a VA-trained Peer Sponsor while in military who assisted in finding new job/housing



Early-Dec 2022 - VA VSI Psych Clinical Intake: “*We were able to get him VA enrolled...SM very concerned about not having psych med refills, which have stabilized him since April 2022. Currently negative for depression/suicide...starting new job.*”

Virtual VA PC consult submitted

Mid-Dec - Virtual Bronx VA Transitioning Veteran PC Clinic: Initial VA PC visit & mailed medication.

Traveling Veteran Consult submitted to Veteran's local VAMC (PC/MH follow-up confirmed)

With VSI, Veteran is enrolled and seen by VA PCP < 90 days from military discharge

- Proactive Approach - Earlier than first Solid Start Call - Earlier than VA receives electronic DD 214

17 Questions Predicting Suicide Attempts After Discharge

Psychological Medicine

cambridge.org/psm

Original Article

Cite this article: Kearns JC et al (2023). A practical risk calculator for suicidal behavior among transitioning U.S. Army soldiers: results from the Study to Assess Risk and Resilience in Servicemembers-Longitudinal Study (STARRS-LS). *Psychological Medicine* 1–10. <https://doi.org/10.1017/S0033291723000491>

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Accepted: 9 February 2023

A practical risk calculator for suicidal behavior among transitioning U.S. Army soldiers: results from the Study to Assess Risk and Resilience in Servicemembers-Longitudinal Study (STARRS-LS)


Jaclyn C. Kearns^{1,2}, Emily R. Edwards^{3,4}, Erin P. Finley^{5,6}, Joseph C. Geraci^{3,4,5,7}, Sarah M. Gildea⁸, Marianne Goodman^{3,5}, Irving Hwang⁸, Chris J. Kennedy⁹, Andrew J. King⁸, Alex Luedtke^{10,11}, Brian P. Marx^{1,2}, Maria V. Petukhova⁸, Nancy A. Sampson⁸, Richard W. Seim⁵, Ian H. Stanley^{12,13}, Murray B. Stein^{14,15,16}, Robert J. Ursano¹⁷ and Ronald C. Kessler⁸ 

Table 3. Predictor importance in the final lasso model^{a,b}

	Multivariable RR (95% CI)	Univariable RR (95% CI)
I. Self-injurious thoughts and behaviors		
Lifetime active suicidal ideation	1.58 (0.97–2.57)	2.85 (1.94–4.19)
Lifetime passive suicidal ideation	1.43 (0.94–2.19)	2.81 (1.99–3.97)
Lifetime suicide attempt	1.24 (1.06–1.45)	1.60 (1.31–1.96)
Suicidal ideation (active or passive) 2 years before leaving active service	1.21 (0.98–1.49)	1.59 (1.32–1.93)
Lifetime suicide plan	1.02 (0.75–1.39)	2.22 (1.62–3.03)
II. Externalizing disorders		
Frequency of substance use-related interpersonal problems (worst lifetime)	1.34 (1.12–1.61)	1.45 (1.19–1.77)
Frequency of school truancy in childhood	1.26 (0.98–1.61)	1.95 (1.43–2.66)
Frequency of running away from home in childhood	1.25 (1.03–1.52)	1.56 (1.29–1.89)
Antisocial personality traits: Physically assault others	1.11 (0.93–1.33)	1.32 (1.09–1.60)
Childhood conduct: How often bullied or threatened kids	1.11 (0.89–1.38)	1.48 (1.22–1.79)
III. Stressor exposure		
Victim of any criminal offense 4 years before leaving active service	1.36 (1.15–1.61)	1.60 (1.37–1.87)
Any lifetime life-threatening accident or other risky/near death experience ^c	0.55 (0.39–0.78)	0.66 (0.45–0.95)
IV. Socio-demographic and Army career predictors		
1+ dependent age 6–13 years old	1.63 (1.33–1.99)	1.45 (1.24–1.70)
Discharged Honorably or Under Honorable Conditions	1.46 (1.15–1.86)	1.38 (1.05–1.80)
Identify as gay, lesbian, or bisexual	1.20 (1.02–1.42)	1.36 (1.15–1.61)
34+ years old at the time of leaving active service	0.64 (0.42–0.97)	0.57 (0.39–0.83)
2+ Global War on Terror deployments	0.54 (0.36–0.83)	0.56 (0.34–0.95)



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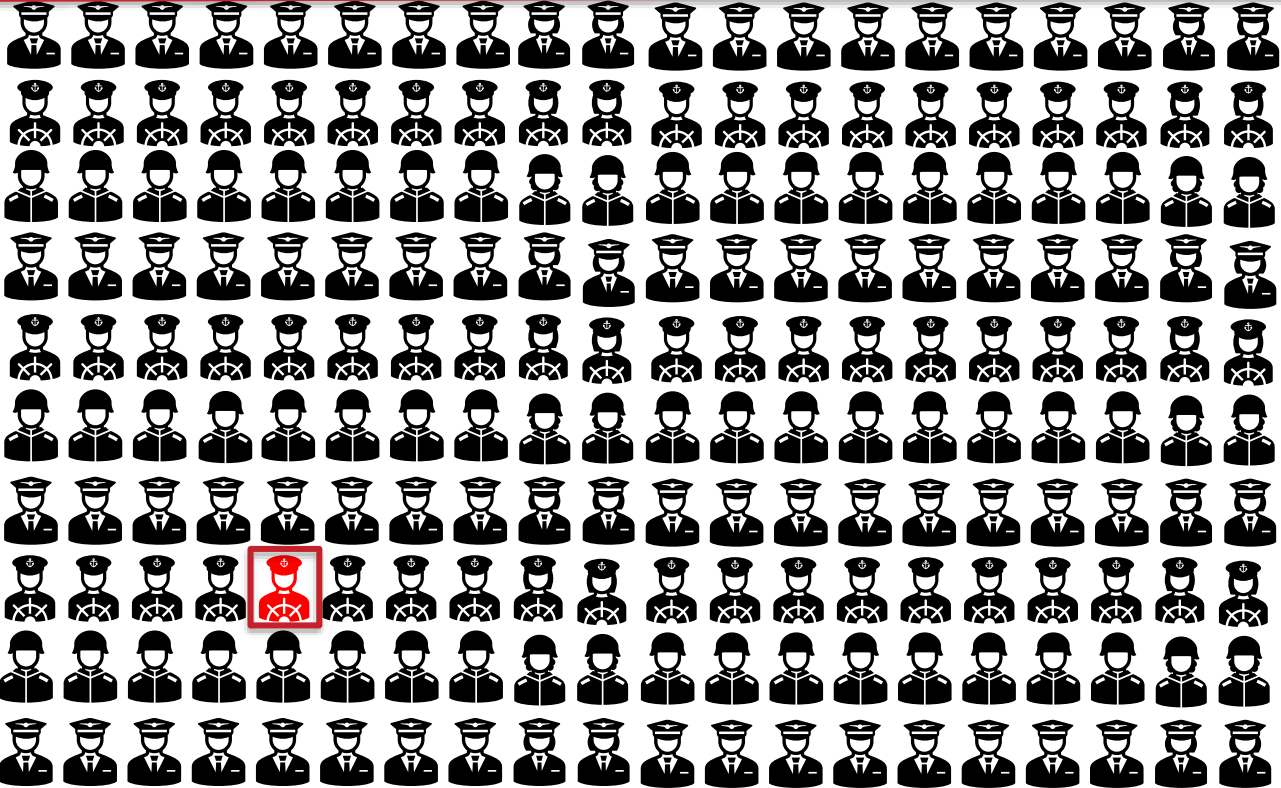
With the DoD STARRS Practical Risk Calculator for Suicide Behavior, we can now categorize based on suicide risk level.

-30% of Servicemembers with highest predicted risk account for 93% of medically serious suicide attempts within the first year post-military discharge

n=90



n=210





Supporting Servicemembers and Veterans During Their Transition to Civilian Life Using Certified Sponsors: A Three-Arm Randomized Controlled Trial

Joseph C. Geraci^{1,2,3,4}, Ariana Dichiaro¹, Ashley Greene^{1,4}, Molly Gromatsky^{1,4}, Erin Finley^{2,5}, Daniel Kilby^{1,3}, Sheila Frankfurt^{2,6}, Emily R. Edwards^{1,7}, A. Solomon Kurz², Yosef Sokol^{1,4}, Sarah R. Sullivan¹, Meaghan Mobbs¹, Richard W. Seim², and Marianne Goodman^{1,2,4}

Baseline (BL) Survey (n=200)

n=68

n=67

n=65

ETS SPONSORSHIP

Arm1: ETS-SP & TM RWB

Arm2: Team Red, White, Blue

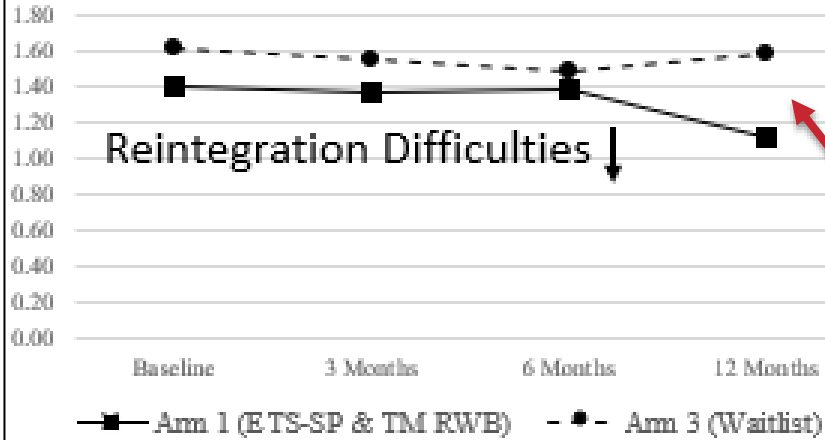
3 Months Post BL

6 Months Post BL

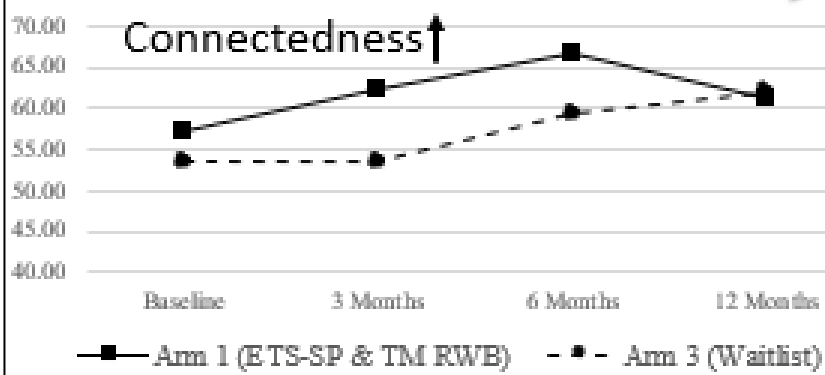
12 Months Post BL

VSI Randomized Controlled Trial (2015-2018)

ETS Sponsorship vs. Waitlist Reintegration Difficulties (Sayer et al., 2011)



ETS Sponsorship vs. Waitlist Social Support Survey (MOS SSS)



Klonsky and May's 3-Step Theory of suicide (3ST; 2015)

Step 1= Psychological Pain (e.g., reintegration difficulties)

Step 2= Connectedness

Step 3= Capability for Suicide (sensitivity, habituation, access to lethal means)



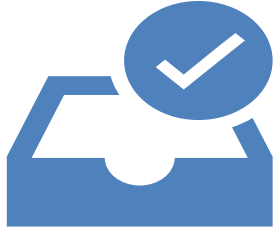
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Program Results



92% increase in VA registration



Increased VERA reimbursement



158% increase in VA primary care

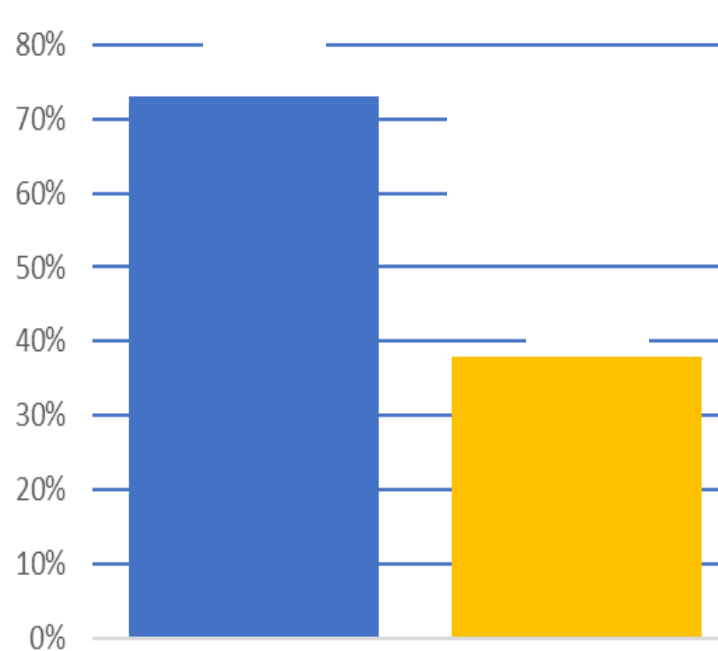


“I got into a really dark place. If it wasn't for your help especially with VA medical I don't think I would've climbed out successfully. Know you made a difference in this combat veteran's life as well as his family”

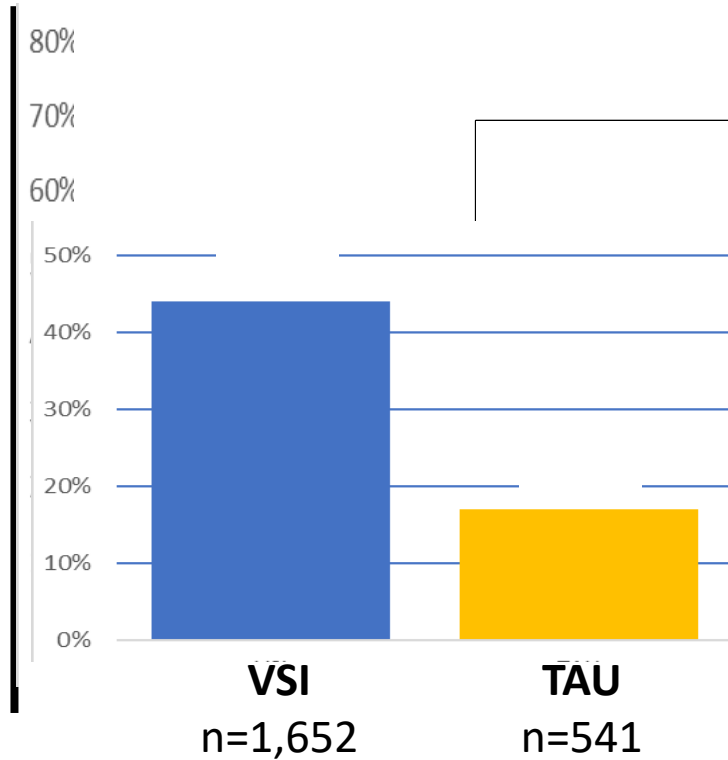
VSI vs. Transition as Usual (TAU)

VA Registration and VA Primary Care (encounter & consult)

VA Registration
(Only military discharged)



VA Primary Care
(Only military discharged)



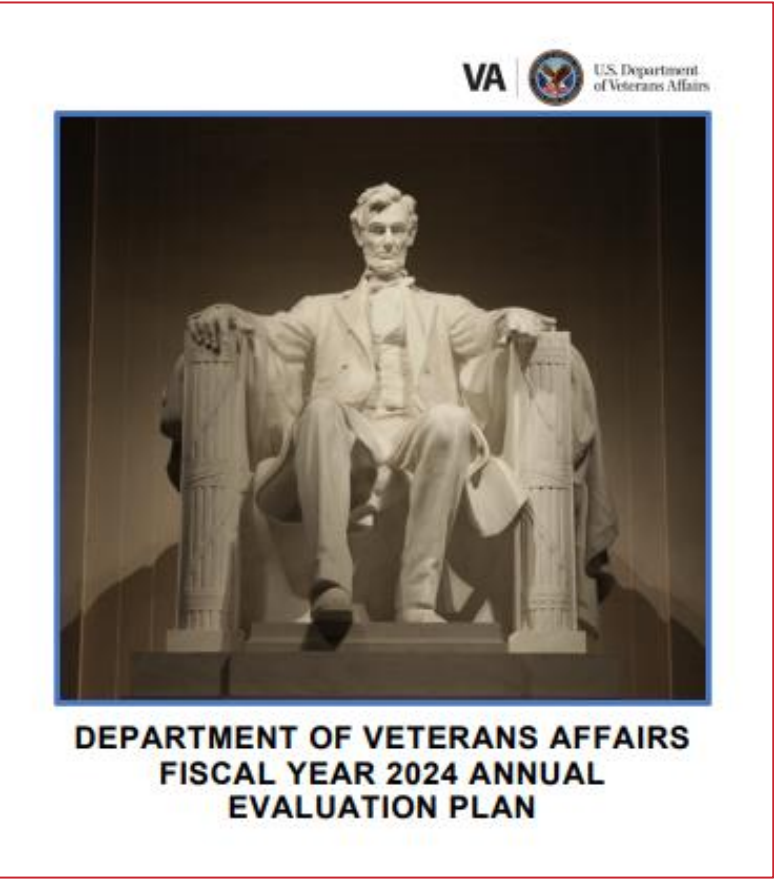
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Evidence Based Act (2018)



<https://department.va.gov/wp-content/uploads/2023/04/va-annual-evaluation-plan-2024.pdf>

VA FY 2024 Annual Evaluation Plan

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Goal: Successfully transition Servicemembers from their military installation to their new post-military community in the domains of employment/education, housing, family, social connection and medical.

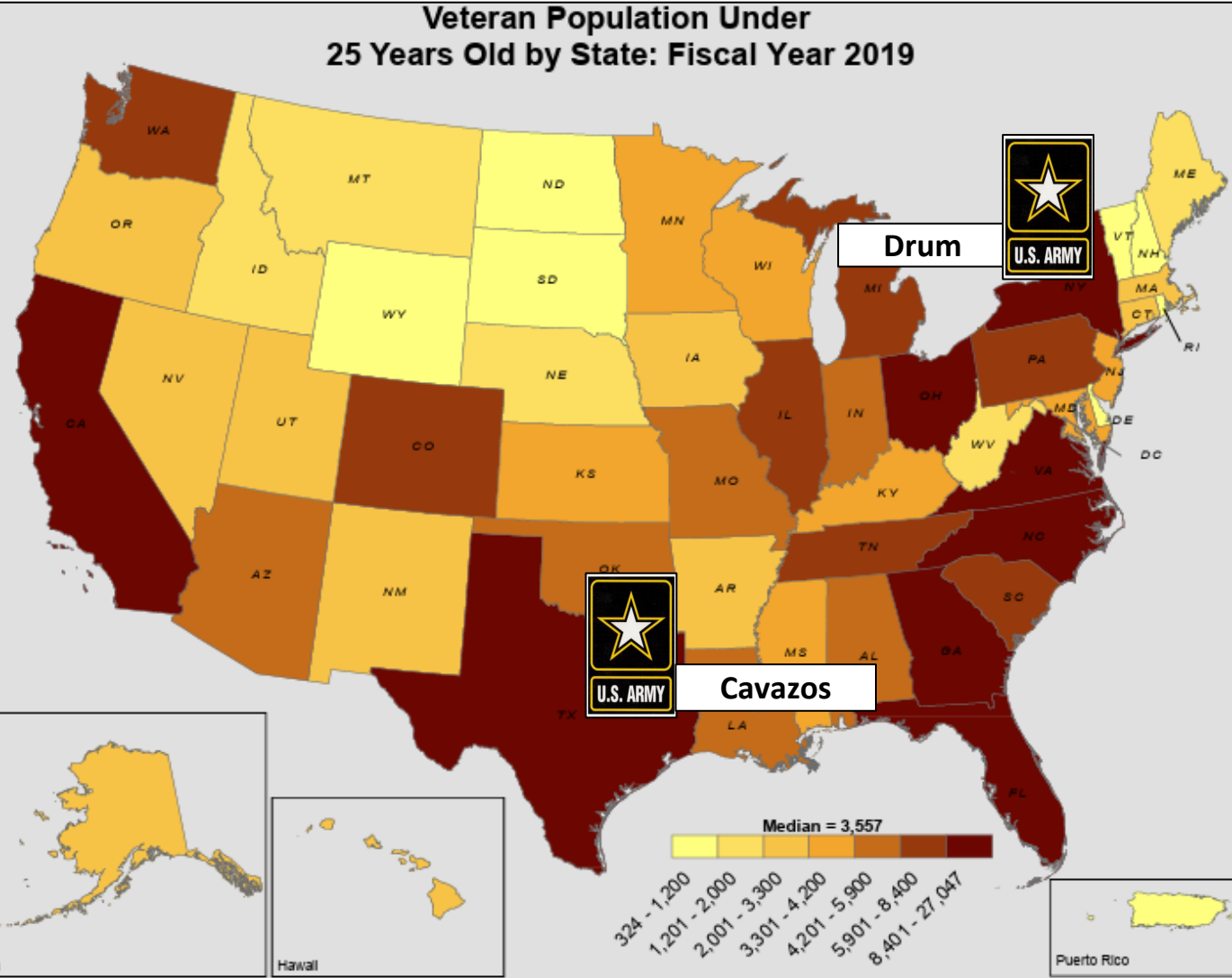


US Army Soldier for Life/ETS Sponsorship

- Enroll Servicemembers on DoD bases
- Administer VSI+/Harvard Screener for Risk
- Data sharing agreement with VA VSI & Community Partners



Veteran Population Under 25 Years Old by State: Fiscal Year 2019



Enrollment of Active-Duty Servicemembers

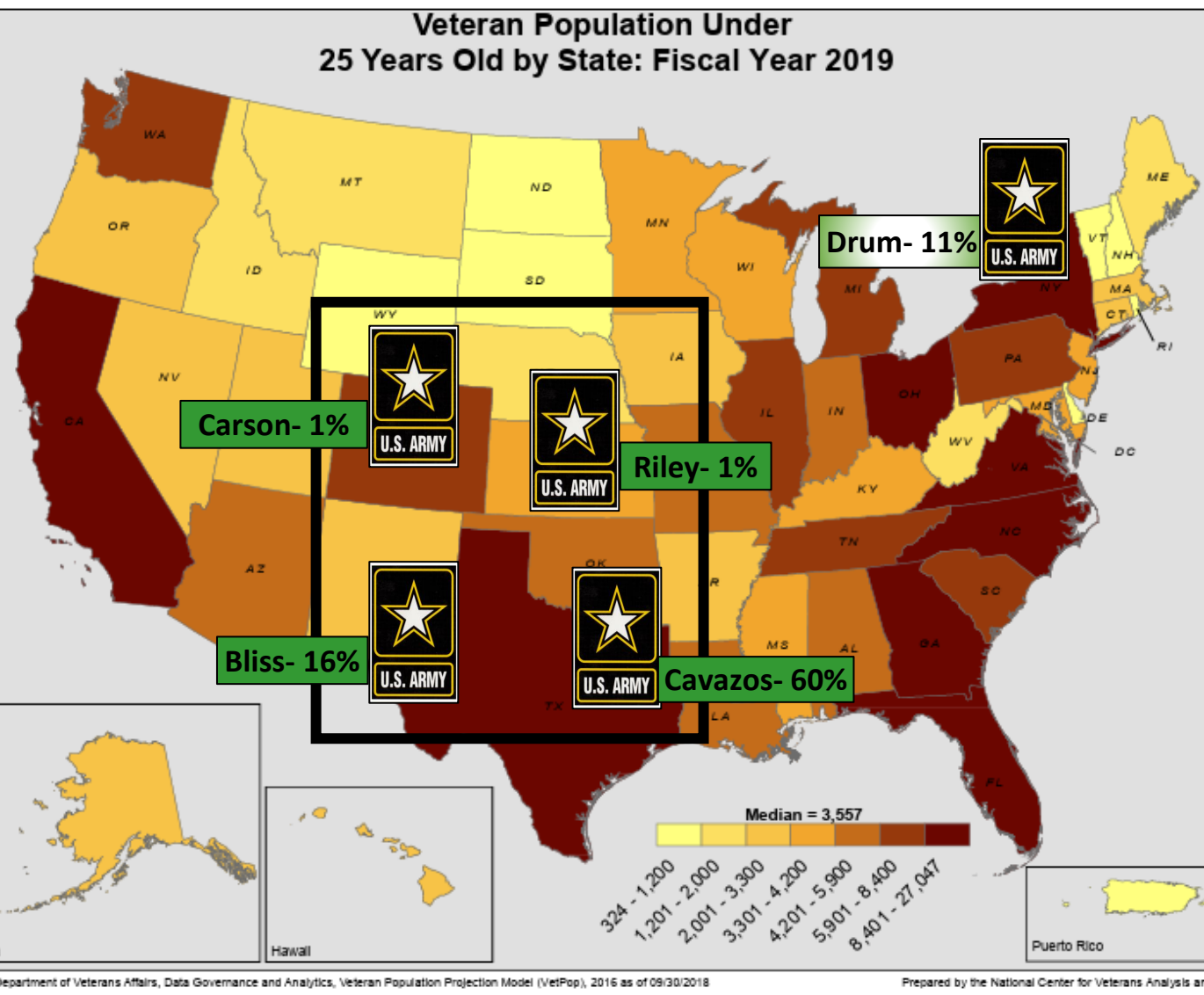
	FY2020	FY2021
Total	279	282

Goal: Successfully transition Servicemembers from their military installation to their new post-military community in the domains of *employment/education, housing, family, social connection and medical.*

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ETS SPONSORSHIP



=96%



=2%



=1%



=1%

Enrollment of Active-Duty Servicemembers

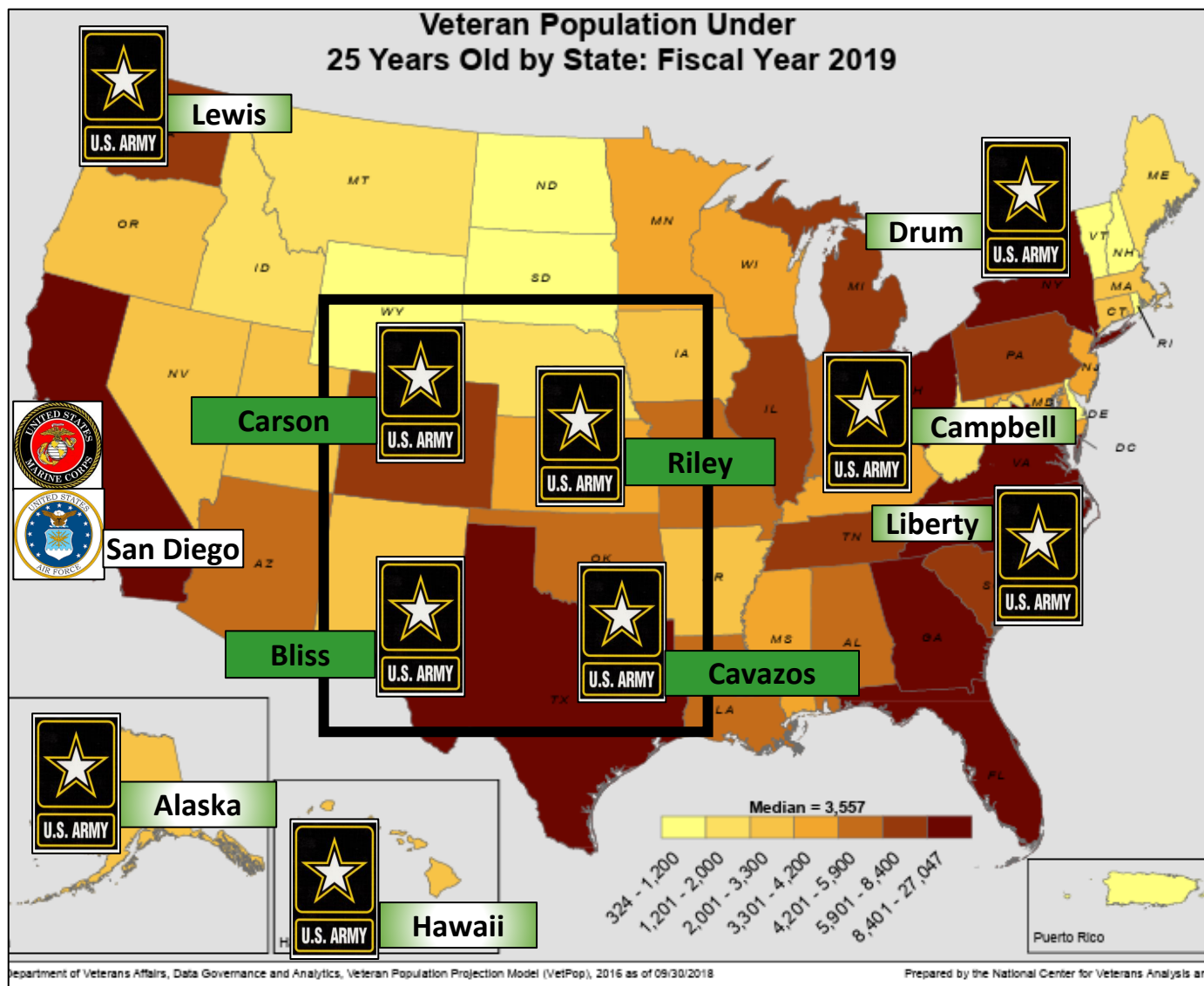
	FY2020	FY2021	FY2022	FY2023	FY2024
Total	279	282	2,210	4,005	18,926

=required enrollment in partnered programs

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ETS SPONSORSHIP



Enrollment of Active-Duty Servicemembers

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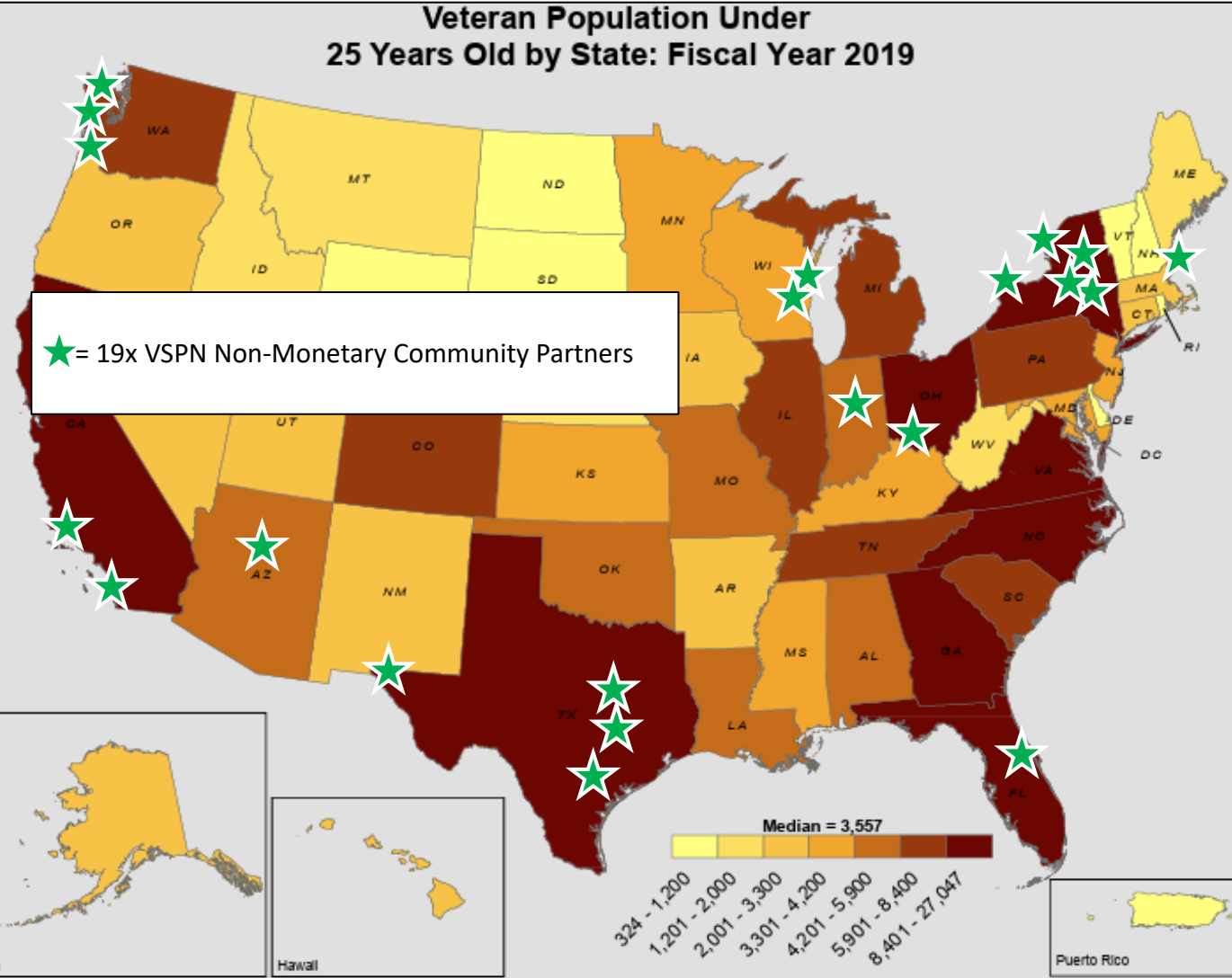
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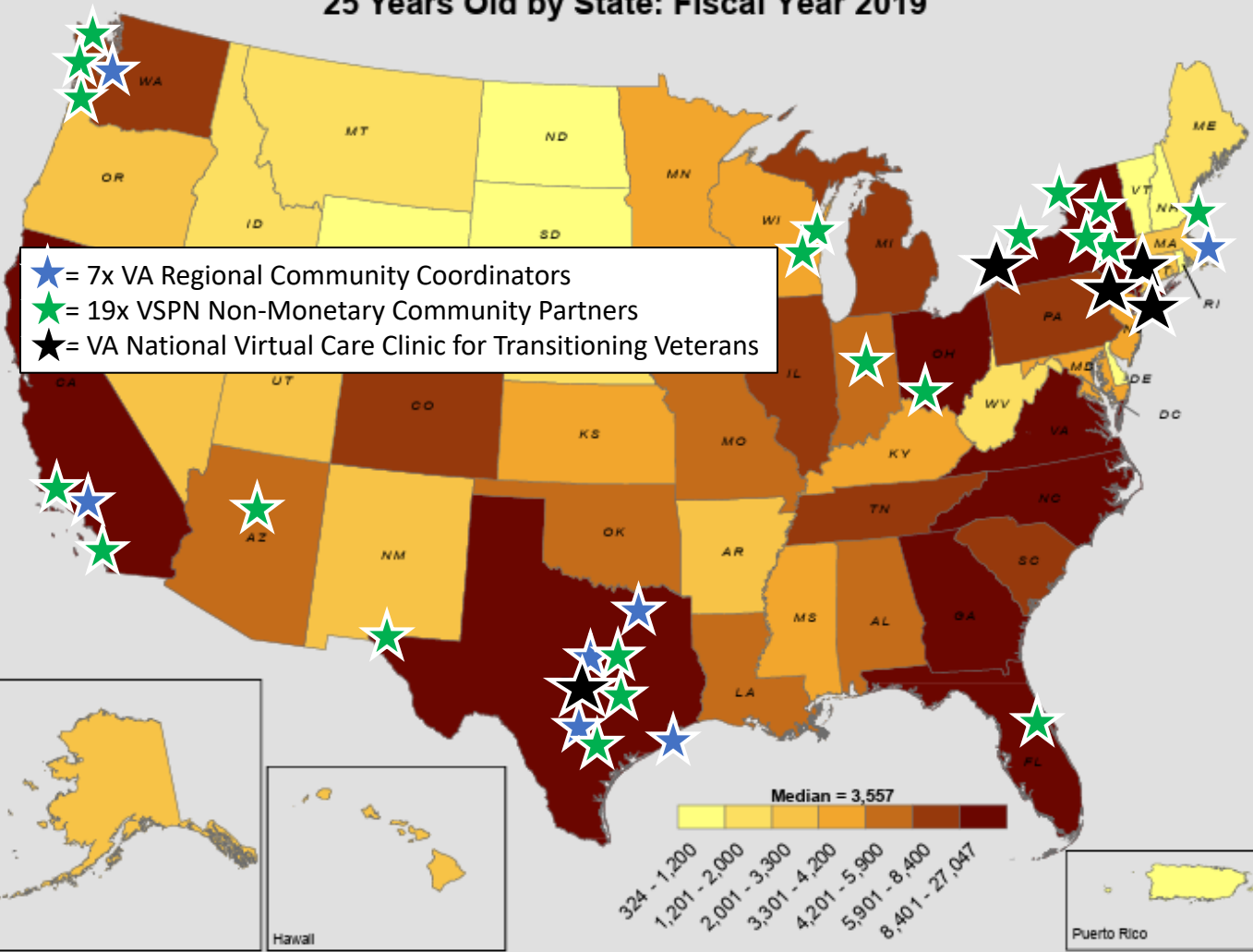
Veteran Sponsor Partnership Network Community Partners

- Vetted VSOs/Local entities w/ VHA non monetary partnership facilitated by VHA National Center for Healthcare Advancement and Partnerships
- Recruit & ensure volunteer sponsors attend VA training
- Manage Servicemember & Sponsor relationship
- Provide local resources pre, during and post transition from the military

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VA Veteran Sponsorship Initiative (VSI)

- VA Regional Community Coordinators (Social Workers)
 - Leverage existing VA programs (VA TAP, Post 9/11 M2VA, CEPCs, Homelessness)
 - VA Case Management
 - Regional Community Engagement/Partnership POC
 - VA Sponsor training facilitator
 - Liaison w/ DoD base leaders
- Referrals to VA Virtual Primary Care, Mental Health Care, In Person Primary Care

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Questions

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