#### The Veterans Metrics Initiative

Learning What Works for Veterans

National Endowment for the Arts December 18, 2019



#### **Research Aims**

#### Aim 1:

- Document Veteran well-being in four key domains mental and physical health, vocation, finances, and social relationships – over the first three years of the transition from military service to civilian life
- > Identify factors associated with better and worse well-being

#### Aim 2:

Describe programs used by veterans as they reintegrate into civilian life and distill them into their components, identifying common components across programs

#### Aim 3:

➤ Identify program components that are associated with changes in wellbeing following separation from military service



#### **Research Outputs**

- Validated multidimensional tool for assessing key components of well-being (Well-Being Inventory)
- Veteran Utilized Program (VUP) instrument
- Menus" of common program components associated with successful Veteran outcomes across multiple well-being domains
- ☐ Public-use dataset of Veteran well-being outcomes across transition continuum



**Unique Contributions of TVMI Study** 

#### **Past Work TVMI** Focus on Veteran Few studies collect information at the Enrolled Veterans within approximately 3 experiences as they time of separation from service months after separation transition from service Surveys administered every 6 months for 3 Examination of change Limited use of repeated assessments to throughout reintegration years post-separation to capture change evaluate reintegration process over time process Applicable to the Many studies limited to Veterans with Large sample drawn from population-based broader Veteran particular health concerns and/or VA sampling frame, with ability to support population subgroup analyses users Most research on: Equal attention to multiple domains using Comprehensive approach Health outcomes or impact of health on newly validated Well-Being Inventory (WBI) to assessing well-being other life domains Assessment of use of VA and non-VA and program use Veterans' use of VA programs programs Limited evaluation of transition Decomposes programs into common **Program components** programs components analysis Will identify core components associated No consideration of common components across Veteran programs with positive outcomes

**Partnered** approach to study Most Veteran research siloed with respect to funding source, research team, and/or data collection strategy

- Funding from both governmental and nongovernmental sectors
- Collaborators from multiple sectors
- Multi-sector data collection strategy

# Data Collection Operations and Cohort Update



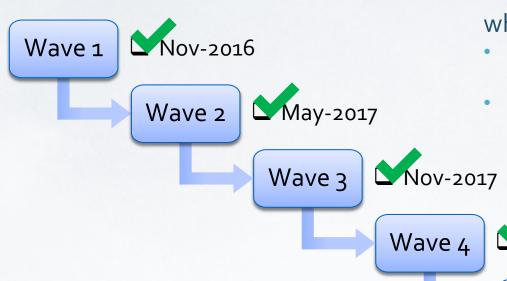
#### **Key Components of Outreach Strategy**

- Initial mail recruitment of Veterans who separated in the past 90 days
  - Pilot recruitment experiment (Sept. 2016) 2,000 randomly selected Veterans
  - Full-wave (Oct. 2016) was a census from VA Data Identity Repository
     all 46,965 Veterans who recently separated in past 3 months
- Follow-up web surveys every six months for 3 years
  - Web survey, but paper and CATI were available if requested (only 18 mail surveys and no CATI surveys were requested)
  - Invitation by email, text, and mail
- Instant Amazon giftcodes provided at end of web survey on screen and by follow-up email or text (amounts increased each survey wave)
- Participants can skip any question, but are shown a red warning message that they have missed a question on the page
- Study website and Helpdesk to provide information and update contact information



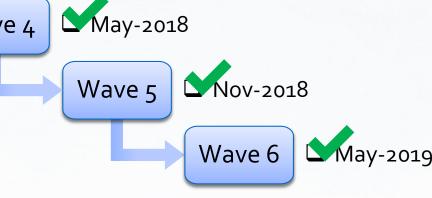
www.VeteranSurvey.org 1-844-356-4606

#### **Data Collection Timeline**



Initial mail recruitment of Veterans who separated in the past 90 days

- Pilot recruitment experiment (Sept. 2016) 2,000 randomly selected Veterans
- Full-wave (Oct. 2016) was a census from VA Data Identity Repository
  - all 46,965 Veterans who recently separated in past 3 months



Wave 2 (**W2**): ~9 months post-separation Wave 3 (**W3**): ~15 months post-separation Wave 4 (**W4**): ~21 months post-separation Wave 5 (**W5**): ~27 months post-separation Wave 6 (**W6**): ~33 months post-separation

Wave 1 (W1): ~3 months post-separation



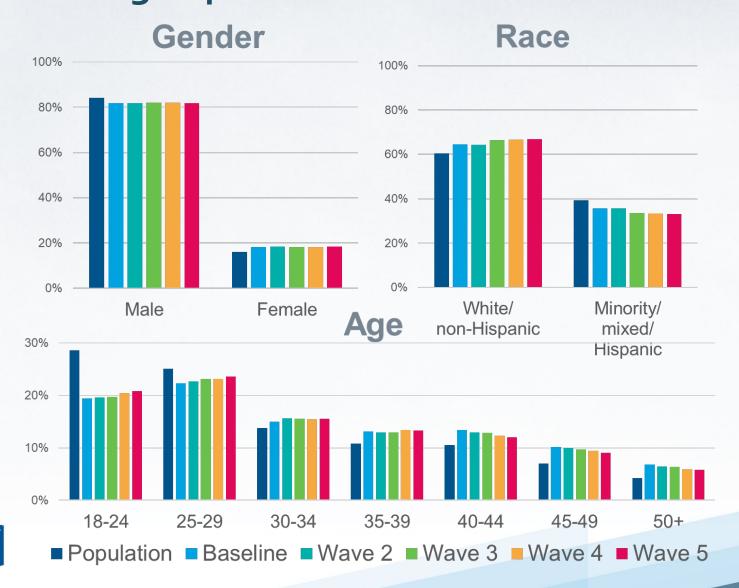
**Survey Contacts and Completes** 

	Baseline - Wave 1		Wave 2		Wave 3		Wave 4		Wave 5	
Sample	N=48,965		N=9348		N=9348		N=9348		N=9348	
Completed survey	n=9,566		n=7,200		n=7,201		n=6,840		n=5,844	
Interview length (median)	36.7 min		37.0 min		40.1 min		39.9 min		41.0 min	
Refusals at login	687		77		34		32		18	
Break-offs after start	581		77		148		76		102	
Break-offs after survey mid-point	62		26		62		26		30	
Questions skipped after warning	Under 2%		Under 2%		Under 2%		Under 2%		Under 2%	
Help-desk calls	93		92		127		104		83	
Completes/Break-offs by device	Comp.	Break-off	Comp.	Break-off	Comp.	Break-off	Comp.	Break-off	Comp.	Break-off
Desktop/laptop/tablet	78.0%	561 (6.6%)	56.6%	110 (2.5%)	61.0%	74 (4.4%)	54.7%	76 (2.0%)	63.3%	63 (2.0%)
Smart-phone	22.0%	160 (8.8%)	43.4%	116 (3.9%)	39.0%	91 (3.4%)	44.5%	61 (2.0%)	35.7%	45 (2.0%)

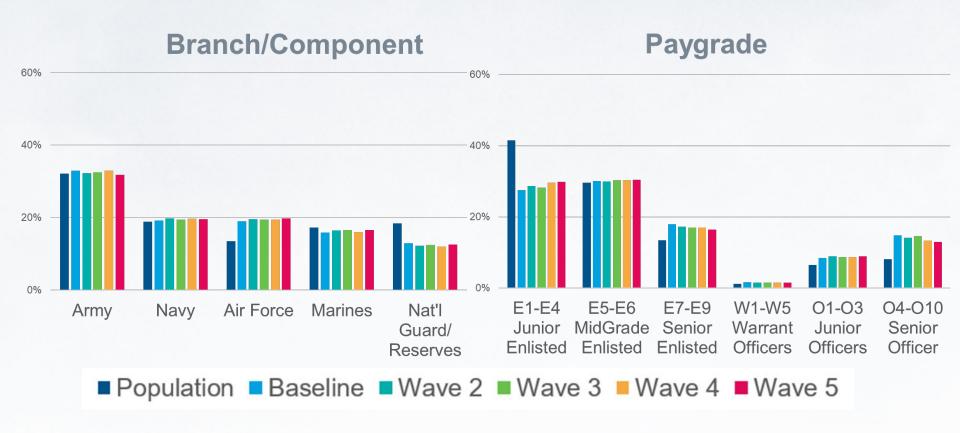
<sup>\* 81.4%</sup> of the sample (7,789) said they would be willing to be contacted by HJF about other study opportunities in the future for themselves or their families.



## TVMI: Linking Program Components to Post-Military Well-Being Maintaining Representativeness

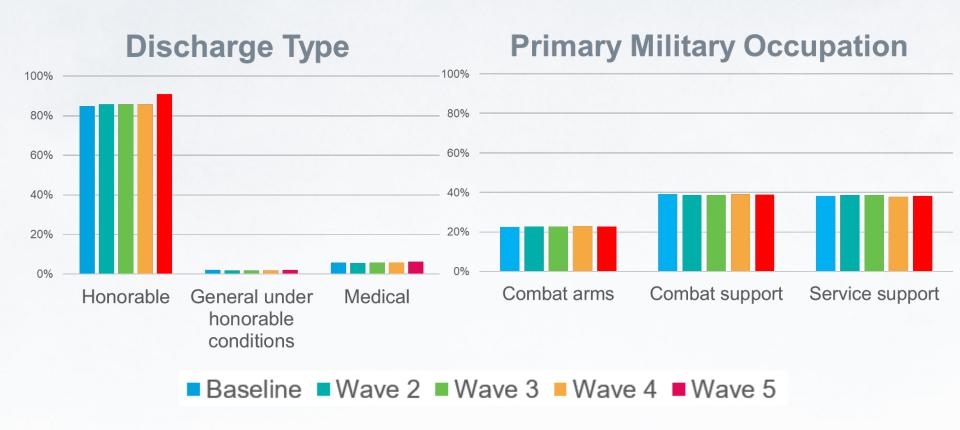


## TVMI: Linking Program Components to Post-Military Well-Being Maintaining Representativeness



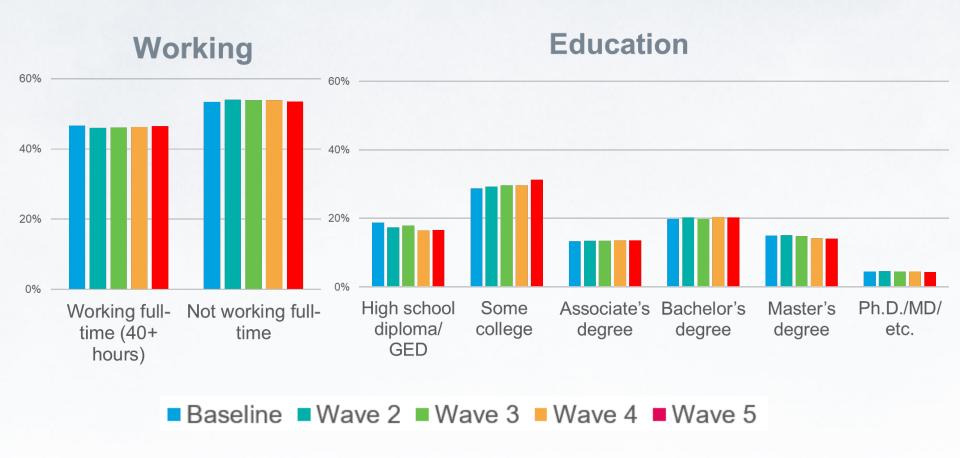


## TVMI: Linking Program Components to Post-Military Well-Being Maintaining Representativeness





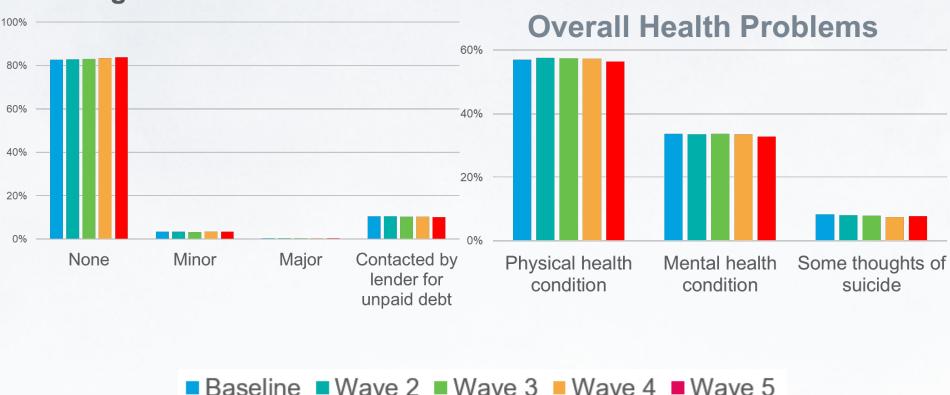
#### **Maintaining Representativeness**





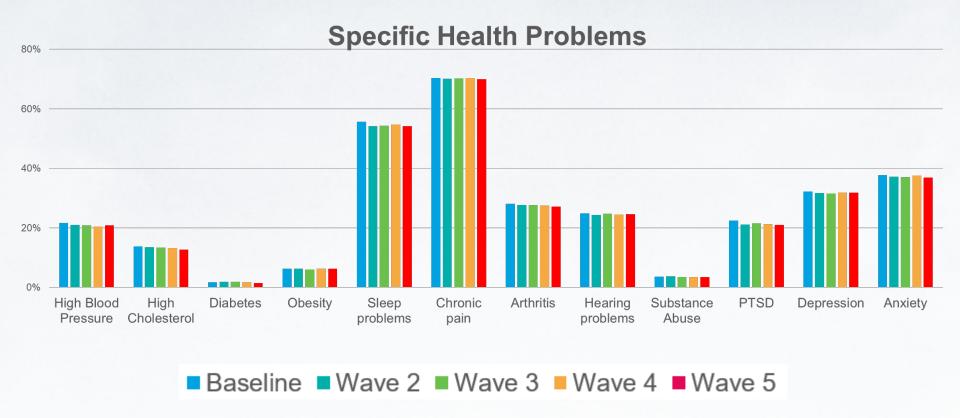
#### **Maintaining Representativeness**

#### **Legal and Debt Problems**





#### **Maintaining Representativeness**





## Update on Well-Being Analyses Led by VA Boston Team



#### **Well-Being Inventory Components**

## Status: Objective experience/ role status

Paid employment, unpaid work, and school/training participation

Vocation

Finances

Health

Social

Income, savings, debt, housing, retirement, insurance coverage

Chronic mental or physical health conditions

Intimate relationship, parenting, family & friends, community involvement

#### **Functioning:**

Behaviors that reflect higher/lower well-being

Quality of work, timeliness/reliability, interpersonal behavior

Behavior related to cash & credit management, savings

Health promoting/risk behavior (e.g., exercise, engagement in meaningful activities, risky drinking)

Being supportive, avoiding conflict and problems, etc.

## Satisfaction: Subjective experience of life domain

Satisfaction with work and/or educational experiences (e.g., pay/benefits, work environment)

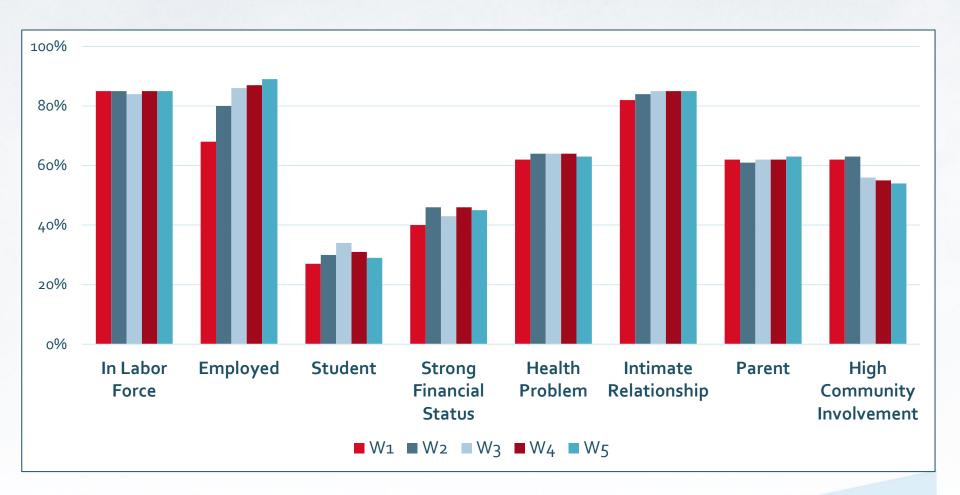
Satisfaction with ability to afford expenses, savings, debt management

Satisfaction with state of physical health, mental health, and access to health care

Satisfaction with quality of relationships and community

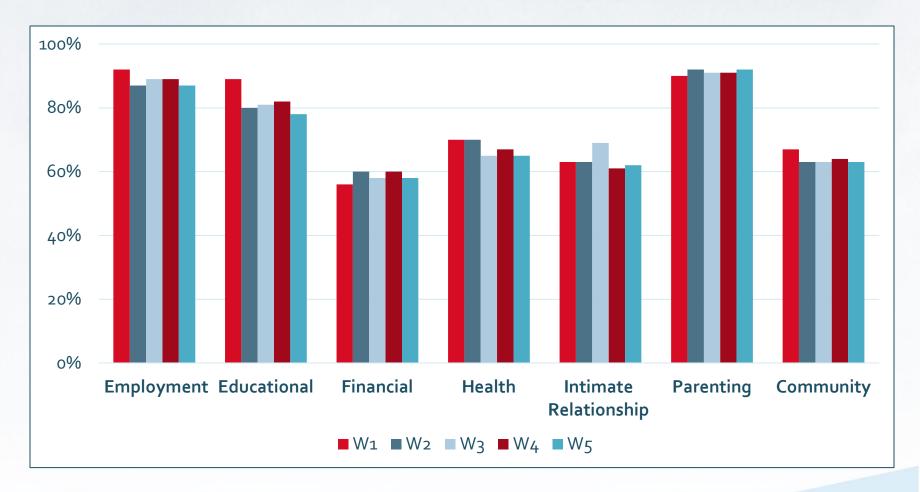
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## TVMI: Linking Program Components to Post-Military Well-Being Change in Status Over Time



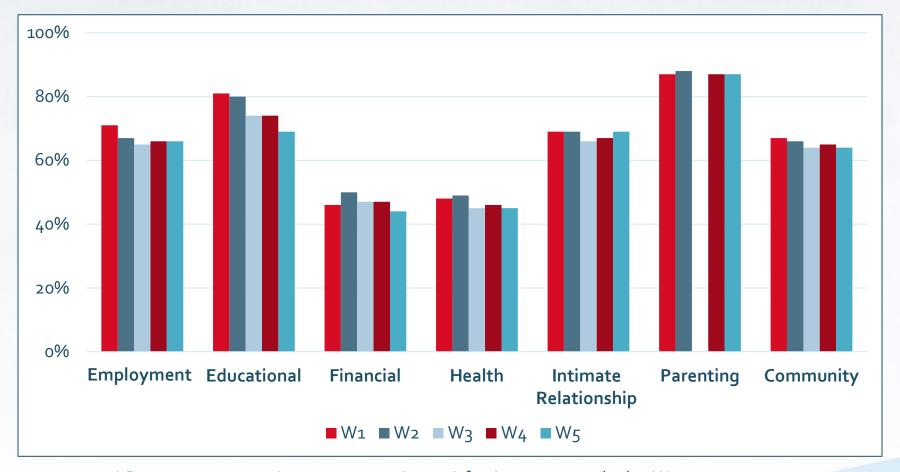


#### **Change in Functioning Over Time**





#### **Change in Satisfaction Over Time**





<sup>\*</sup> Due to a programming error, parenting satisfaction was not asked at Wave 3.

# Stress, Trauma, and PTSD: Waves 1-4

Findings by VA South Texas and VA Central and Western
Massachusetts teams



#### **Predictors of PTSD**

#### PreTrauma

- Age, gender, race
- Education
- Rank
- Prior trauma
- Childhood adversity
- Own/family psychiatric history

#### PeriTrauma

- War exposure
- Deployment stressors
- Severity of trauma
- Perceived threat

#### <u>PostTrauma</u>

- Lack of social support
- Additional life stress



#### Life Stressors Measured



Unsafe in neighborhood **8%** 



Physical and mental health

32%



Unwanted sexual attention or contact

2%



Unsafe at home

3%



Caring for a loved one with illness/disability



Death of someone close

9%



Discrimination (race, ethnicity, sex, religion, etc.)

7%



**7%** Financial problems

29%



Pressure at work or school

21%



Legal problems

6%



Separation, divorce, or serious problem

14%



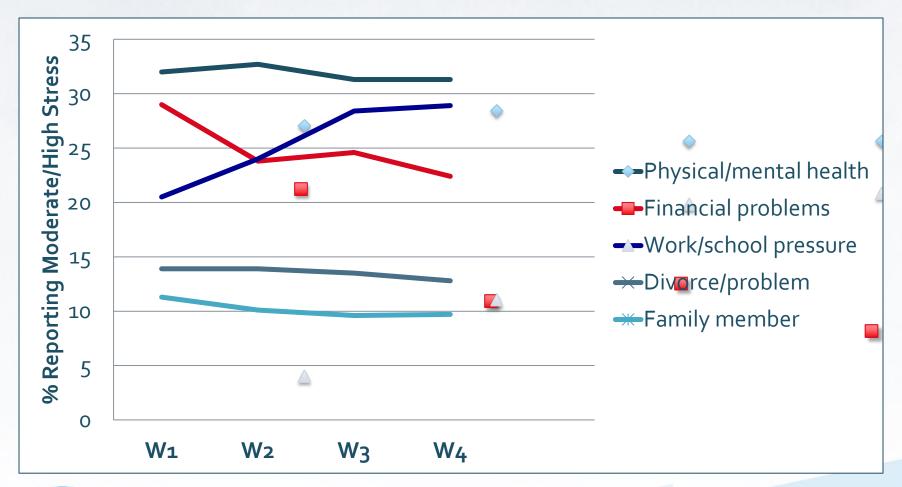
Children



Family member with legal, financial problems

11%

#### Top 5 Chronic Life Stressors, Wave 1-4

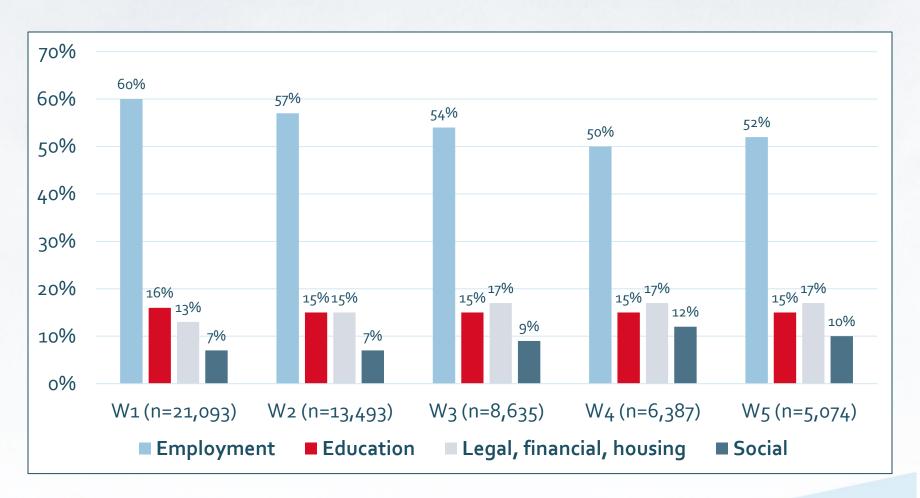




# Veteran-Utilized Programs and Highlighted Results led by Penn State team



#### Wave 1, 2, 3, 4, & 5 Program Nominations



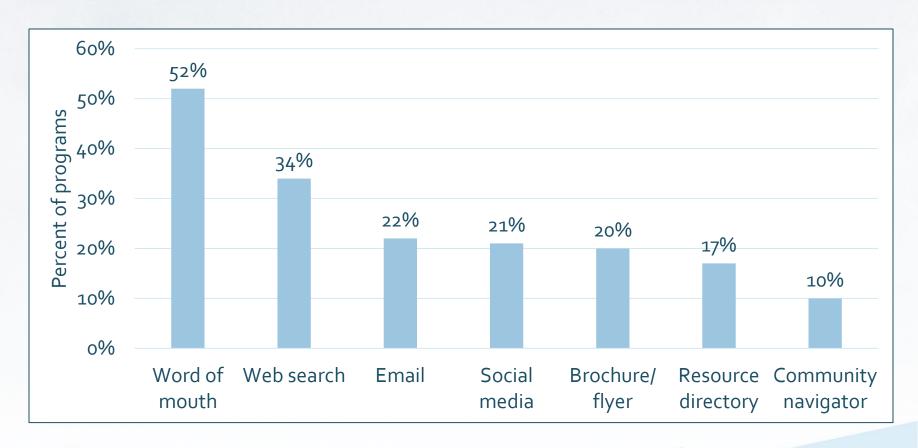


## TVMI: Linking Program Components to Post-Military Well-Being Waves 1-5: How did you hear about this program?

- Each wave, Veterans were asked to nominate programs used within the well-being domains
- Next, Veterans were given the opportunity to discuss 2 programs in more detail.
  - "How did you hear about the program?" is one of the questions
- Data were merged from Wave 1 to Wave 5
  - Summarized by Veteran (n=6,199)



## How did you hear about this program? (n=1,835 unique programs)





## Common Components Around the Creative Arts



#### What are Common Components?

- <u>Content</u>: what does the program teach or what information does it provide?
- Process: how does the program convey information or teach skills?
- <u>Barrier reduction</u>: does the program provide tangible supports or does it reduce barriers to accessing the program?
- <u>Sustainability</u>: how does the program keep participants engaged once formal programming has ended?

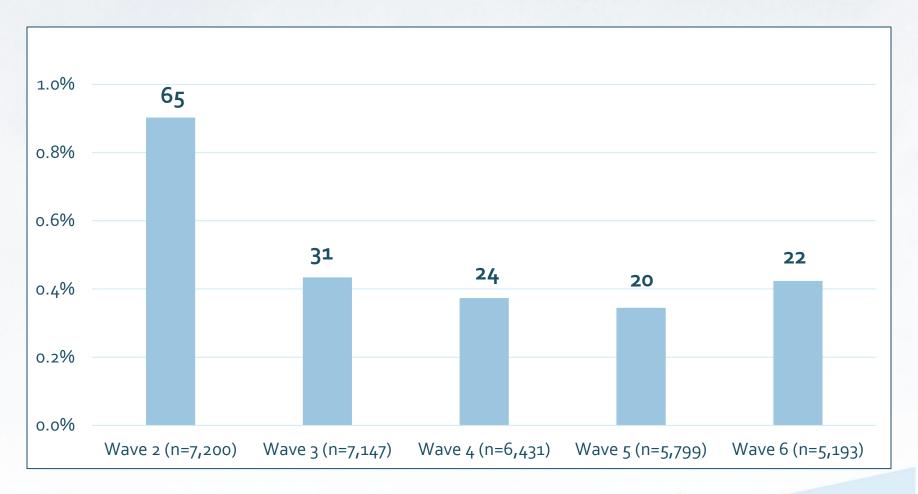


#### Background

- Added at Wave 2 (6-9 months post-separation):
   What program(s) have you used for artistic expression (i.e. painting, music, drama, creative writing), such as Veteran Artist Program or Foundation for Art and Healing?
  - Program 1 \_\_\_\_\_
  - Program 2 \_\_\_\_\_
  - No I did not participate in any types of these programs (EXCLUSIVE)

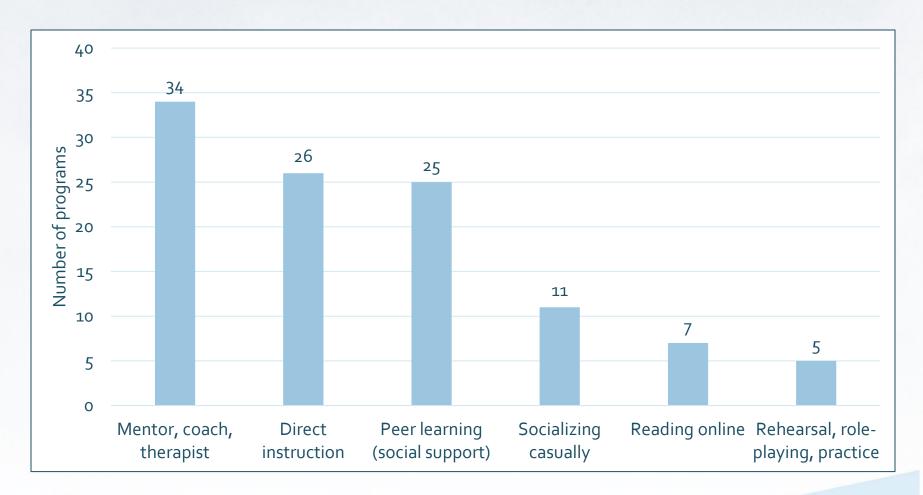


#### Therapeutic Arts Components - By Person



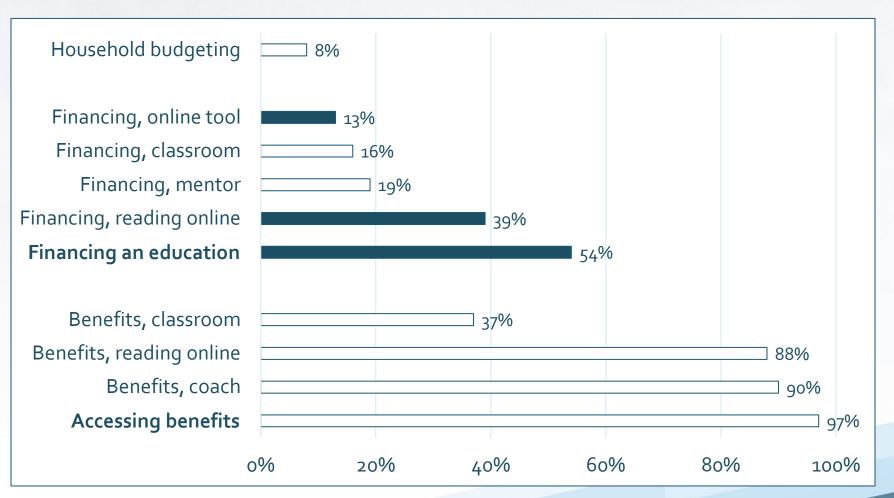


#### Therapeutic Arts Components – By Program





## Common components in the <u>financial</u> domain related to education completion by Wave 5



#### **Dissemination Activities**



#### **Presentations**

- Global Implementation Conference
- Canadian Institute for Military and Veteran Health Research
- Society for Research in Child Development





- International Society for Traumatic Stress Studies
- AMSUS The Society of Federal Health Professionals











### TVMI: Linking Program Components to Post-Military Well-Being WBI Psychometric Paper

Lead Author: Dawne Vogt, PhD; Status: In Press

#### Background/rationale

 No comprehensive, multidimensional measure is available to assess vocational, financial, health, and social factors that set the stage for well-being

#### Purpose

 Develop a measurement tool for use in the TVMI study and to serve as a resource to others interested in assessing Veterans' well-being

> APPLIED PSYCHOLOGY: HEALTH AND WELL-BEING, 2019 doi:10.1111/aphw.12161



Development and Validation of a Tool to Assess Military Veterans' Status, Functioning, and Satisfaction with Key Aspects of their Lives

## TVMI: Linking Program Components to Post-Military Well-Being Baseline Program Use

Lead:: Daniel Perkins, PhD; Published in Journal of Social Service Research

- Approximately two-thirds of veterans used at least one program to enhance their well-being, while one-third reported using multiple programs across multiple domains.
- Veterans primarily sought assistance for employment and educational advancement, and fewer veterans sought assistance for legal/financial/housing, health, and social functioning challenges.



Transition to Civilian Life: Baseline Assessment for

the Veteran Metrics Initiative



### TVMI: Linking Program Components to Post-Military Well-Being Employment Program Use at Transition

Lead Author: Keith Aronson, PhD; Published in Journal of Veterans Studies

- Program utilization differed by gender, paygrade, race/ethnicity), with males, junior enlisted, and White non-Hispanic veterans less likely to use employment programs.
- Veterans with warfare exposure or a current physical health condition were more likely to use programs.
- Veterans with an ongoing mental health problem used programs at the same rate as those without problems.



Aronson, K. R., et al. (2019). Post-9/11 Veteran Transitions to Civilian Life: Predictors of the Use of Employment Programs. *Journal of Veterans Studies*, 5(1), pp. 14–22. DOI: https://doi.org/10.21061/jvs.v5i1.127

### RESEARCH

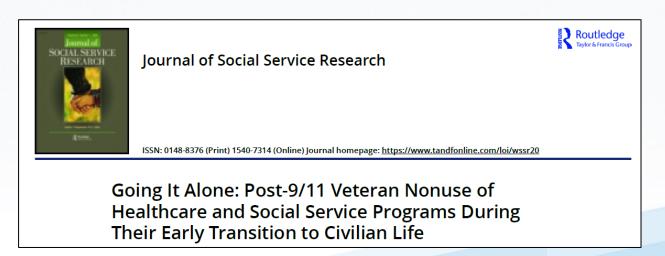


Post-9/11 Veteran Transitions to Civilian Life: Predictors of the Use of Employment Programs

## TVMI: Linking Program Components to Post-Military Well-Being Non-Use of Health and Social Programs

Lead Author: Keith Aronson, PhD; Published in J of Social Service Research

- Male veterans often reported that they did not need programs.
- Female veterans and veterans from the lowest enlisted ranks were more likely to report that they did not know if they were eligible for support programs.
- A small percentage indicated they had not found the right program or did not know where to go to get help.

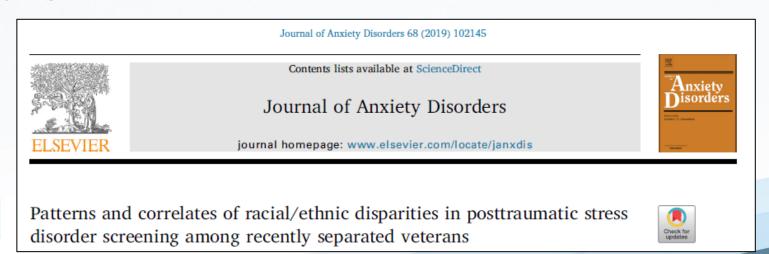




# TVMI: Linking Program Components to Post-Military Well-Being Race, Ethnicity, and PTSD Screening Rates

Lead Author: Juliette McClendon, PhD; Published in J of Anxiety Disorders

- Among men and women, positive PTSD screening rates were significantly elevated among Black, multiracial, and Hispanic/Latinx veterans compared with White veterans.
- Sociodemographics, trauma exposure, stress and social support accounted for elevated positive screening rates among all racial/ethnic groups except Black men and multiracial women.



## TVMI: Linking Program Components to Post-Military Well-Being Gender Differences in Healthcare Use

Lead Author: Laurel Copeland, PhD; In press at Am J Managed Care

- For women but not for men, concerns about unstable housing or losing housing at separation from the military was associated with failure to use healthcare one year later
  - This was true for subgroups with identified need for healthcare as well as for low-risk groups such as the employed
- The implication is that transition services need to be gendertailored for the 10% or 12% of veterans with unstable housing at separation.
- This paper was presented at VHA's HSR&D/QUERI National Meeting (Oct. 2019) and was the topic of an invited interview that will be released as a podcast soon.



# TVMI: Linking Program Components to Post-Military Well-Being Scientific Papers Under Review

### Baseline Well-Being

• Describes findings on the well-being of Veterans in the first year after separation

### Stress and Reproductive Health Outcomes

 Describes the impact of women's exposure to stress/trauma on their post-military reproductive health

## Adverse Childhood Experiences (ACEs)

 Describes findings on the rates of adverse childhood experiences (ACEs) reported by veterans and impact on mental health outcomes



# TVMI: Linking Program Components to Post-Military Well-Being Scientific Papers Under Review

Introduction to Barrier Reduction Components

 Describes findings on the types of program access, tangible supports, and intrinsic barriers addressed by programs used at Wave 1

Health Care Use Among Veterans with Mental Health Needs

 Describes rates of health program and service use at baseline for veterans with probable depression, anxiety, PTSD, or alcohol misuse

Moral Injury and Social Well-Being

 Describes the impact of moral injury on veteran's satisfaction and functioning with their broader community



# TVMI: Linking Program Components to Post-Military Well-Being Scientific Papers in Preparation

## Risk Profile Paper

Identify factors that predict risk for poor overall well-being

# Moral Injury and Well-Being

 Examine role of moral injury and other factors in predicting decline in Veterans' post-military health and well-being

## Suicide and Well-Being Paper

 Will examine the role of post-transition well-being in Veterans' subsequent suicidality



# TVMI: Linking Program Components to Post-Military Well-Being Scientific Papers in Preparation

### Post-Traumatic Growth

Identify factors that predict likelihood of post-traumatic growth

Mothers' & Fathers' Parenting

• Examine the role of deployment and other factors in predicting parenting satisfaction and functioning for mothers and fathers

Impacts of Childhood and Service Trauma

• Examines the combinations of adverse childhood experiences and warfare exposure on veterans' mental health



### TVMI: Linking Program Components to Post-Military Well-Being Infographics and Menus of Common Components

Created 5 infographics and 1 menu in 2019

THE VETERANS METRICS INITIATIVE (TVMI)

Unweighted survey data of 9,566 newly separated veterans was analyzed to understand the background characteristics and experiences related to veterans paid work and educational satisfaction at the time of separation and whether some of these same factors predicted improvements or declines in veterans' paid work and educational satisfaction throughout the first -15 months following separation. Characteristics in place at the time of separation are the focus of these analyses, as the ultimate goal is to identify subgroups of veterans who may benefit from support at the time of transition.

The associations between the following factors and vocational satisfaction were examined: Demographic characteristics (gender.

- age, minority race/ethnicity) 2.) Military characteristics (rank, service
- 3.) Military trauma history (warfare exposure, military sexual trauma, moral injury)
- 4.) Mental health at time of separation (PTSD, depression, anxiety, alcohol
- 5.) Internal and external resources at the time of separation (resilience, social support)





- Among the predictors examined, resilience (+), officer rank (-), and depression (-) demonstrated the strongest associations with paid work satisfaction at the time of separation
- Among the predictors examined, social support (+). depression (-), and moral injury (-) demonstrated the strongest associations with educational satisfaction at the time of separation.
- No potential predictors were associated with both lower initial well-being and continued improvements or declines in vocational satisfaction over time, suggesting that the factors have their primary impact on well-being at the time of separation rather than change in well-being over

rted herein are unweighted and report on the surveyed sample. They do not represent any large



### THE VETERANS METRICS INITIATIVE (TVMI)



- veterans were analyzed to understand the types of barrier reduction common components veterans used in the 0-90 days following discharge. Barrier reduction components take three forms:
- · Providing access to the program (e.g., transportation, child care, insurance to provide access to health care)
- Tangible support offered to help veterans achieve veterans their goals (e.g.,
- scholarship for education, food assistance, business clothing for job interviews) · Strategies to reduce intrinsic barriers (e.g., stigma reduction, increasing motivation to change)

#### INTRINSIC BARRIERS

- . 6% of programs increased motivation to change behaviors by offering such strategies as free trials to help start an exercise regimen
- 3% of programs attempted to reduce stigma around program use, like through social media

#### PROGRAM ACCESS

- 95% of programs provided content online while 15% offered transportation to reduce travel barriers
- · 6% covered lodging costs for veterans to attend programming and 6% covered program fees via registration waivers not available to non-veterans
- · 4% offered childcare so that the veteran could attend the event or program
- 3% provided access to medical treatment without requiring insurance, like free counseling sessions

#### TANGIBLE SUPPORTS

- 18% of programs gave scholarships or tuition discounts to veterans (excluding the GI Bill)
- · 16% provided monetary awards, including emergency grants
- . 13% offered discounted pricing on goods or services delivered by the program only for veterans
- 12% gave out clothing, including business attire, and other physical goods, like sports equipment · 8% funded housing and accessibility modifications
- 7% provided job placement assistance and 6% assisted with licensing and certification costs
- 6% of programs supported veterans through free legal advice

#### VA BENEFITS

- . 74% of Veterans used a Department of Veterans Affairs benefit at Wave 1.
  - . 32% used the VA home loan program to increase access to housing
- · 45% used a VA education benefit to help pay for higher education (35% used Post-9/11 GI Bill )
- . 74% use a VA hospital, clinic, or Veteran Center for healthcare





#### The Veterans Metrics Initiative

#### BACKGROUND

- Wave 1-5 participants nominated technical and vocational schools, colleges, and universities they attended, with 44% reported attending an educational program in the first 2 1/2 years post-separation.
- Veterans self-reported participation at their school's student Veterans center, student Veterans organization, or non-Veterans student organization.
- Schools nominated by four or more Veterans (n=185) were coded in Summer 2018-Winter 2018 using the common components analysis technique.
- The content common components coded were Veteran-specific, meaning that the school offered
- the components exclusively to Veteran students, not the general student population.
- · Information presented below reflects the proportion of programs with each coded component.

#### CONTENT COMPONENTS

Content components describe what a program teaches or what information it provides Volunteering activities - 41%

- Accessing benefits 97%
- Veterans organizations 79%
- Career planning and exploration 75%
- Transitioning to a civilian school 69% · Veterans centers - 66%
- · Financing an education 54% Translating military education to credits - 47%
- Resume writing 35% Interviewing skills - 20%
- School application considerations 14% Job training and certification - 13%
- Leadership & team communication 9%
  - - Entrance and certification exam prep 4%

### PROCESS COMPONENTS



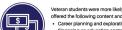
- Process components capture how a program conveys information or teaches skills.
- Mentors or coaches: 19-90% of content · Networking group: 13-36% of content
- · Reading online: 24-88% of content Classroom format: 16-37% of content
  - · Casual socializing: 76% of only 1 content
    - Interactive online tool: 13% of only 1 content

#### EFFECTS OF COMPONENTS ON OUTCOMES

We used logistic regression to determine the likelihood of a Veteran student completing their

education by Wave 5 compared to component non-users.

- Veterans in Associate's degree programs who self-reported participating in non-Veteran studen
- organizations were about 2 times more likely to complete their degree program by Wave 2. Veterans in professional degree programs (ex. JD,MD) who self-reported attending a Veterans
- student center were 7.5 times more likely to complete their degree by Wave 2.





- Career planning and exploration content taught via self-paced online reading
- · Financing an education content taught via self-paced online reading or interactive online tools
- · Leadership and teamwork skills content taught via any process





## TVMI: Linking Program Components to Post-Military Well-Being Future Directions – VUP Evaluation Tools

- Develop an online evaluation system where programs in the field can select outcome measures from an evaluation-rubric based on the various subdomains (e.g., well-being, sense of purpose, resiliency) they wish to target
- Use the menus of effective components to help programs create detailed logic models that allow them to lay out a clear theory of change to be evaluated





# TVMI: Linking Program Components to Post-Military Well-Being Future Directions – TVMI Sample Comparisons

- Utilize the TVMI sample as a comparison group for programs that want to do evaluations of their effectiveness but do not have a reference group to do so
- Survey the spouses/partners about their experiences with programs and reintegration
- Develop a brief intervention to address moral injury





## **Questions?**



