



*Strategies to Achieve Alignment, Collaboration, and Synergy  
Across Delivery and Financing Systems*

**Integrating Health and Social Services for Veterans by  
Empowering Family Caregivers**

*Research In Progress Webinar  
Wednesday, August 7th, 2019  
12:00-1:00 pm ET/9:00-10:00am PT*

# Agenda

Welcome:

Glen Mays

Presenters:

Megan Shepherd-Banigan, PhD, MPH

Commentary:

Jennifer Henius, LCSW

Q&A:

Moderated by Glen Mays



# Megan Shepherd-Banigan, PhD, MPH

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Megan Shepherd-Banigan is a health services researcher; she completed her PhD in Health Services Research at the University of Washington. She studies family support for individuals with mental and physical disabilities. She also focuses on how to creatively and rigorously combine empirical approaches to address methodologically challenging research questions in health systems and policy research. Megan is a core Investigator at the Durham VA Health Services Research and Development and is an Assistant Professor of Population Health Sciences at Duke University. She currently holds a career development award from the VA HSR&D to activate family support to help Veterans with posttraumatic stress engage in evidenced-based therapies.



# Jennifer Henius, LCSW

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Jennifer Henius is a licensed clinical social worker with nearly 15 years of service at the VA and has served in a variety of clinical and administrative positions. She completed her Masters Degree in Social Work at the University of South Florida and is an alumnus of the VA's Graduate Healthcare Administration Training Program which serves to develop high performing leaders for careers in health care administration.

Jennifer serves as the Senior Health System Specialist for the VA's Caregiver Support Program Office and provides high level staff work in support of the National Director in the implementation and oversight of Public Law 111-163, Caregivers and Veterans Omnibus Health Services Act of 2010.

Jennifer had the lead for drafting the program's published national policy guidance and is responsible for the Secretary's Annual Report to Congress. Jennifer supports a broad range of business functions and secured more than \$8 Million dollars in provision of the program's IT requirements and serves as the business lead for this project.

Jennifer also serves as the program lead for the collaborative partnership with VA CARES and has served an integral role since its inception in developing the project's aims under the direction of Dr. Courtney Van Houtven.

## VA HSR&D Durham

- Courtney Van Houtven, PhD, MSc
- Terri Pogoda, PhD
- Nina Sperber, PhD
- Valerie Smith, PhD
- Karen Stechuchak, MS
- Kevin McKenna, MPH
- Katherine Miller, MSPH
- Emili Travis, BA
- VA CARES Evaluation Team (PI: Van Houtven)

## Caregiver Support Program

### VACO

- Margaret Kabat, LCSW-C, CCM
- Jennifer Henius, LCSW

- Context/Problem
- Potential Strategy
- Research Question 1
  - To explore how caregiver support facilitates engagement with medical and vocational/education services?
- Research Question 2
  - Examine if institutional support for caregivers impacts time to use of the post 9/11-GI Bill benefit, VR&E, and supported employment?
- Conclusions
- Implications
- Partner's Remarks
  - Jennifer Henius, LCSW, Senior Health System Specialist for VA Caregiver Support Program Office

## Veteran

- 3.3 million deployed since 2001
- Advances in battlefield medicine
  - 14% PTSD; 19% TBI
- Some experience reintegration challenges
  - Challenges maintaining social relationships, employment, education; economic vulnerability; decline in health

## **Veteran: cross cutting medical, social, economic needs**

### **Veterans Health Administration**

- **Evidenced-based medical and psychological care**
- **Supported employment**
- **Institutional support for caregivers through Caregiver Support Program**

### **Veterans Benefits Administration**

- **Education assistance (post 9/11 GI Bill)**
- **Vocational rehabilitation and employment (VR&E)**



## **Veteran: cross cutting medical, social, economic needs**

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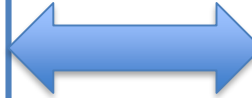
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## Veteran: cross cutting medical, social, economic needs

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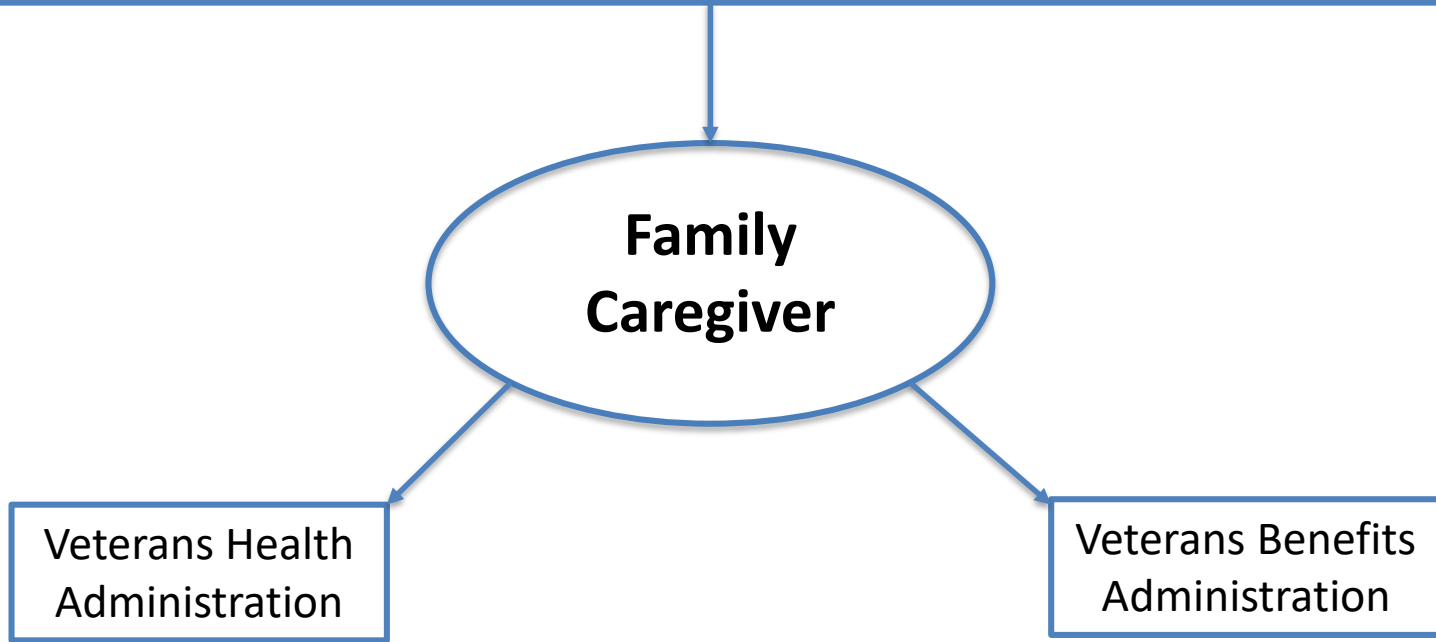
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**Veteran: cross cutting medical, social, economic needs**

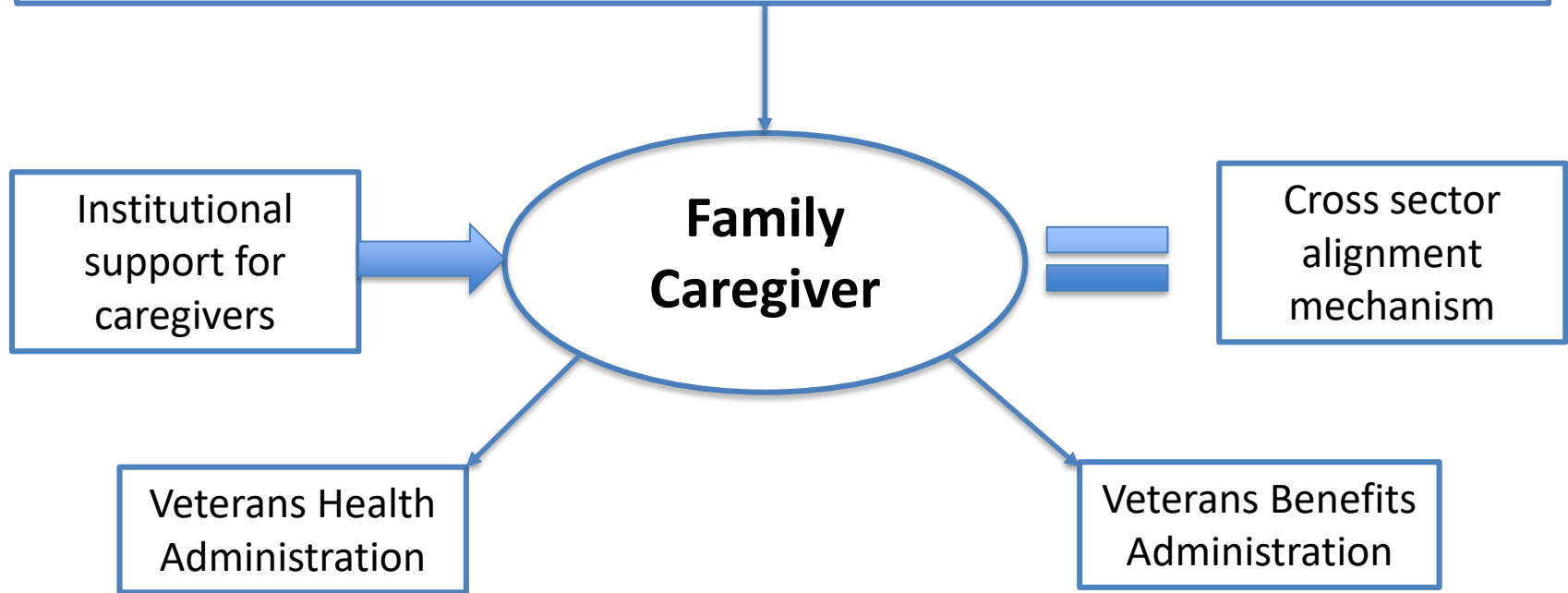
**Family  
Caregiver**

Veterans Health  
Administration

Veterans Benefits  
Administration



**Veteran: cross cutting medical, social, economic needs**



# Opportunities in VA

## Caregivers & Veterans Omnibus Health Services Act (P.L. 111-163; May 5, 2010)

Outlined specific new services for caregivers of Veterans:

1. Program of General Caregiver Support for caregivers of **eligible Veterans from all eras in need of a caregiver**
2. Program of Comprehensive Assistance for Family Caregivers (PCAFC) of **eligible Veterans injured in the line of duty on or after 9/11/2001**

VA Caregiver Support Program Office housed in Veteran Health Administration, under Care Management and Social Work Services, Patient Care Services

# Program Expansion

VA Mission Act 2018 ends the disparity of limiting the PCAFC to caregivers of post 9/11 Veterans only and newly authorizes financial planning and legal services as additional VA benefits extended to qualified caregivers

A graphic with a dark blue background and a diagonal split into light blue and maroon sections on the right side. The text is white and centered.

VA MISSION Act of 2018

Learn about the New Veterans  
Community Care Program



# 1. Problem (complex health/social needs among Veterans)

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2. Potential strategy (family caregivers)

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2. Potential strategy (family caregivers)



3. Opportunities in VA (institutional support, data integration)

1. Problem (complex health/social needs among Veterans)



2. Potential strategy (family caregivers)



3. Opportunities in VA (institutional support, data integration)



4. Research questions:

- **RQ 1.** What features of family caregiver support increase Veteran access to medical and employment/education services?
- **RQ 2:** Can institutional support for family caregivers through PCAFC impact use of employment/education services(e.g. post 9/11 GI Bill, VR&E, and supported employment)?

## Research Question 1

What features of family caregiver support increase Veteran access to medical and **employment/education** services?

- 26 joint in-depth telephone-based Veteran/caregiver dyad interviews
  - Veteran and caregiver participate together
- Sample: Dyads in which caregivers had enrolled in PCAFC and veterans used one of the employment or education services
- Thematic analysis
  - Structural coding (based on qualitative scripts)
  - Content coding
  - Summarize themes
  - Conducted checks for coding consistency

# Results

# Qualitative sample statistic n=26

Veteran  
mean  
age  
**42 years**

CG  
mean  
age  
**39 years**

Veteran  
male  
**100%**  
Caregiver  
female

Veteran  
White  
**64%**

Veteran  
and CG  
married  
**85%**

Used Post-  
9/11 GI Bill  
**65%**

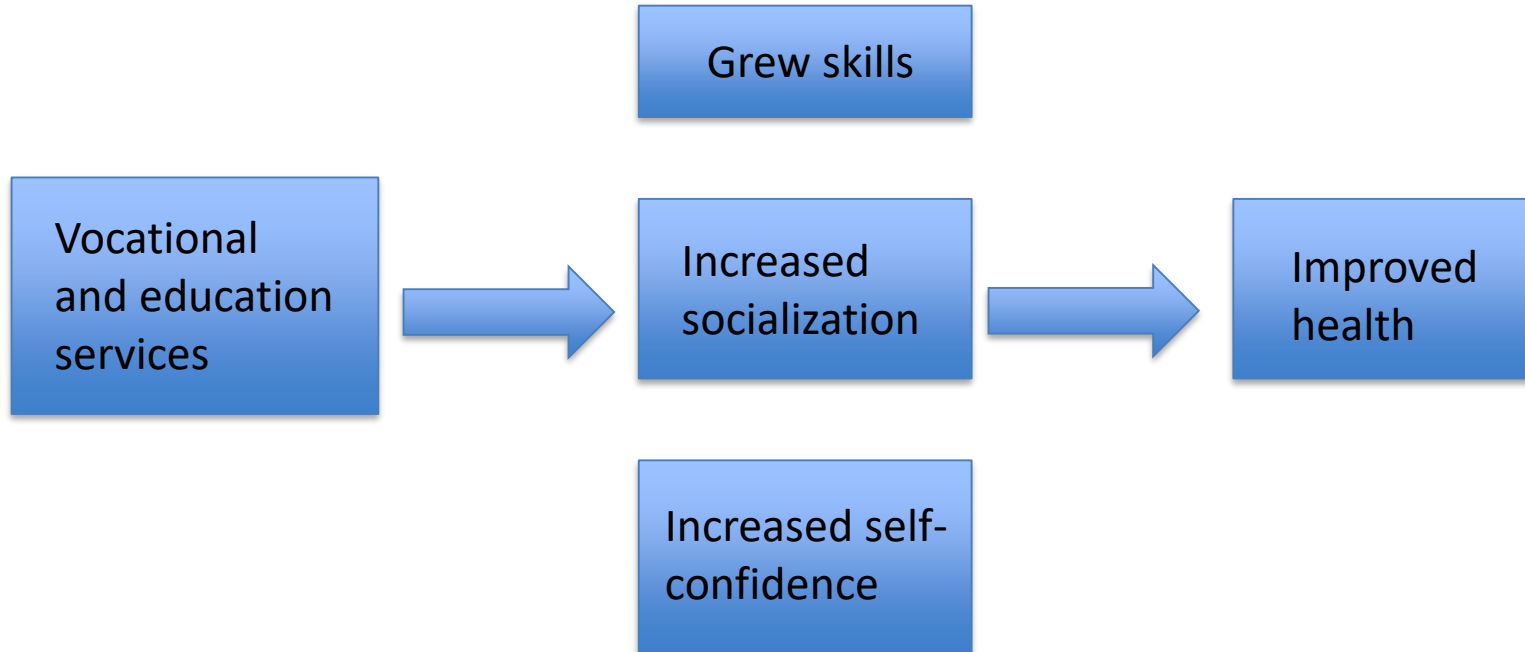
Used VR&E  
**58%**

Used  
Supported  
employment  
**15%**

Used at  
least 2  
services  
**42%**



# Veteran recovery encompassed health and employment/education needs

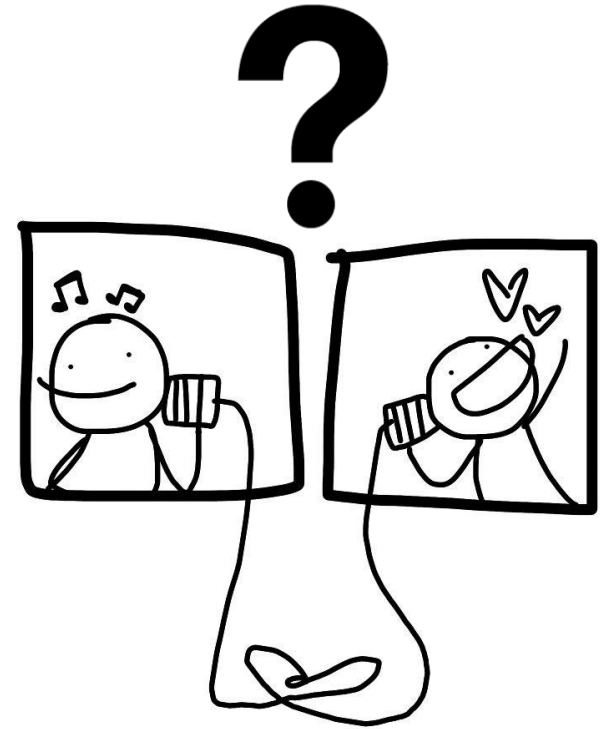


*"For me it was therapeutic [...] I believe that something like that will help a lot of Veterans [that suffer] from PTSD." (ID 61, Veteran)*

# Lack of interaction between VA Bureaus inhibits VA's ability to address cross-cutting needs

- Limited interaction between VHA clinical health care teams and VBA employment/education counselors
- Lack of understanding on VHA side about how to access VBA services

*“[there is a] disconnect between the service side, the benefits side, and the VA health care side. Health care providers, the admissions and the benefit [counselors] focus on theirs ...So they might know of [other services], but they wouldn't know how to apply or the details of the program.” [ID 1357, caregiver]*



# Caregivers provide range of supportive tasks that help veterans engage in VA services

- Caregiver tasks to help veterans engage in VA services
  - Instrumental support
  - Emotional
  - Coordination
  - Advocacy
  - Informational
- More widely cited for health care



# Caregivers provide range of supportive tasks that help veterans engage in VA services



- Instrumental support
  - driving Veteran to medical appointments
  - registering for classes
  - helping to complete assignments
  - completing paperwork for VA benefits or school disability services

# Caregivers provide range of supportive tasks that help veterans engage in VA services

## Coordination

*“Informing [providers] of progress at home, how he’s doing mentally, how he’s doing physically. And then letting them know side effects or anything that [is] going on with medications that he’s taking.” (ID 736, caregiver)*



# Caregivers provide range of supportive tasks that help veterans engage in VA services

## Advocacy

*“I was able to help by going to the registrar’s office, going to the special services department, and ensuring that everything was handled, and the professors were aware that he isn’t a joke and he’s here, and he wants to be taken seriously. But it’s more than just the arm that’s missing; it’s the intellectual and emotional disabilities that affect these Veterans more because it’s harder for us able bodies to recognize the difference.”*  
(ID 15, caregiver)

# Institutional support for family caregivers was key for improving veteran use of health care

## Elements of institutional support

- Point of contact for family
- Financial assistance
- Acknowledge caregiver role



# Institutional support for family caregivers was less influential for employment/education services

## Elements of institutional support

- Financial assistance
- Encourage patient to pursue (vocational) service

*One of the nurses there [PCAFC Program] was saying, ‘well you could do something for yourself, and you can go to school’”. (ID 67, caregiver)*



- Employment/education services improved health
  - Include in patient treatment plans?
- Caregivers could operate as a bridge between health and non-health services
  - Already carrying out key tasks in health care setting
  - Direct translation of these tasks to vocational/education settings; but occur less often
  - Well positioned to communicate with clinical teams
- Institutional support for caregivers has clear impacts on health care; those impacts could be extended beyond health sector

## Research Question 2

Does participation in PCAFC impact time to use of the post 9/11-GI Bill benefit, VR&E, and supported employment?

- Data
  - VHA EHR
  - Caregiver Support Program administrative data
  - VBA administrative data
- Sample: 1 cohort per employment/education service
  - Veterans under 55 whose caregivers applied to PCAFC between May 1, 2010 and Sept. 30, 2014
  - Excluded if used service outcome prior to PCAFC application
- Control: Caregivers applied to PCAFC and were never approved for enrollment

Instrumental variable Cox proportional hazards regression models (Cambior-Martinez et al, 2018)

- **Treatment:** Ever approved for PCAFC
- **Outcome:** Time to application for the post 9/11 GI Bill benefit, VR&E, or supported employment
- **Instrumental variable:** facility-level percentage approval for PCAFC in the 6 months prior to application
- **Sensitivity analysis:** ran naïve adjusted Cox proportional hazards regression model (without IV)

- Unable to randomize individuals to PCAFC
- Assume non-random selection
  - Individuals who are accepted into PCAFC may have unobserved characteristics that also affect use of vocational services
    - Personal expectations for engaging in work/school may be related to PCAFC selection and use of vocational services
- IV allows analyst to pseudo randomize or sort individuals such that their characteristics are balanced across treatment groups!

# Descriptive Statistics

# Table 1: Quantitative sample characteristics

	Post 9/11 GI Bill	VR&E	Supported employment
<b>n</b>	<b>9,776</b>	<b>9,390</b>	<b>19,217</b>
% service use	14.7%	19.2%	1.7%
Veteran Age (m, sd)	37 (30, 47)	36 (29, 46)	35 (30, 45)
Veteran male gender	91.6%	91.9%	90.5%
Veteran White race	74%	73.2%	70%
Veteran Hispanic ethnicity	11%	12.1%	12.3%
CG married to Veteran	80%	80.5%	80.4%
Veteran PTSD diagnosis	67.7%	68.5%	68.1%
Veteran TBI diagnosis	27%	27.6%	26.6%
Musculoskeletal disorder/disease	61.9%	59.1%	61.0%

# Analytical Model Results



- IV strongly related to the treatment variable
- Covariates are more balanced across levels of IV than treatment variable
  - Can only examine on observed covariates, but assume that unobserved also balanced

# Hazard ratio (95% Confidence Interval)

Post 9/11 GI Bill

VR&E

Supported  
employment

Naïve adjusted  
Cox PH model

IV adjusted Cox  
PH model (2SRI +  
frailty)

*Models adjusted for health comorbidities, demographics, distance to nearest facility, caregiver/veteran relationship, VA-level disability and insurance variables, service use, facility fixed effects, and application time period fixed effects.*

*Instrumental variable=facility-level percentage approval for PCAFC in the 6 months prior to application*

# Hazard ratio (95% Confidence Interval)

Post 9/11 GI Bill

VR&E

Supported  
employment

Naïve adjusted  
Cox PH model

**0.94 (0.86, 1.04)**

IV adjusted Cox  
PH model (2SRI +  
frailty)

**1.00 (0.45, 2.22)**

*Models adjusted for health comorbidities, demographics, distance to nearest facility, caregiver/veteran relationship, VA-level disability and insurance variables, service use, facility fixed effects, and application time period fixed effects.*

*Instrumental variable=facility-level percentage approval for PCAFC in the 6 months prior to application*

# Hazard ratio (95% Confidence Interval)

	Post 9/11 GI Bill	VR&E	Supported employment
Naïve adjusted Cox PH model	0.94 (0.86, 1.04)	<b>0.84 (0.75, 0.93)</b>	
IV adjusted Cox PH model (2SRI + frailty)	1.00 (0.45, 2.22)	<b>0.94 (0.55, 1.95)</b>	

*Models adjusted for health comorbidities, demographics, distance to nearest facility, caregiver/veteran relationship, VA-level disability and insurance variables, service use, facility fixed effects, and application time period fixed effects.*

*Instrumental variable=facility-level percentage approval for PCAFC in the 6 months prior to application*

# Hazard ratio (95% Confidence Interval)

	Post 9/11 GI Bill	VR&E	Supported employment
Naïve adjusted Cox PH model	0.94 (0.86, 1.04)	0.84 (0.75, 0.93)	<b>1.29 (1.01, 1.67)</b>
IV adjusted Cox PH model (2SRI + frailty)	1.00 (0.45, 2.22)	0.94 (0.55, 1.95)	<b>1.35 (1.06, 1.79)</b>

*Models adjusted for health comorbidities, demographics, distance to nearest facility, caregiver/veteran relationship, VA-level disability and insurance variables, service use, facility fixed effects, and application time period fixed effects.*

*Instrumental variable=facility-level percentage approval for PCAFC in the 6 months prior to application*

- PCAFC associated with use of supported employment
  - Possible that linkages between supported employment and PCAFC are more direct because located within VHA?

- Caregiver support for employment/education services
  - Aligns well with PCAFC's orientation towards recovery/psychosocial rehabilitation
- Translate into practice
  - Tools/information to help caregivers navigate VBA services
  - Treatment plans that address employment/education needs
  - PCAFC staff to strengthen relationships with VBA programs

- Define employment/education as priority determinants of health
- Extend on work being done to involve caregivers in health care teams
- Shift perspectives around role caregivers can play
  - in employment/education sector
  - to perform cross-sector coordination
- Educate providers, counselors, caregivers and Veterans



# Commentary: Caregiver Support Program Office— Jennifer Henius, LCSW

- Implications of caregiver involvement in social services for PCAFC mission
  - Strengthen psychosocial approach
- Programmatic changes to make CSCs aware of connection between health and social needs
- Role that PCAFC is playing in crafting mechanisms to change expectations for how caregivers can be involved in non-health services
- What PCAFC can do in program implementation to encourage caregivers to help veterans engage in vocational/education services

## Papers

- Leveraging institutional support for family caregivers to meet the health and vocational needs of patients with disabilities. *R&R Nursing Outlook*
- The effect of institutional support for family caregivers on veteran use of vocational and educational services. *In preparation, target Journal of Health Economics*
- Facilitators and Barriers for Disabled Veterans to Engage in Vocational and Educational VA Services. *In preparation, target Psychological Services*

## Presentations

- Integrating Health and Social Services for Veterans by Empowering Family Caregivers. *5<sup>th</sup> International Conference on Evidenced-based Policy in Long-term Care. Oral presentation. Vienna, Austria September 2018.*
- Institutional Support for Informal Caregivers As a Mechanism to Enhance Use of Vocational Reintegration Services for Disabled Veterans. *Poster presentation at the Academy Health 2019 Annual Research Meeting, Washington, DC June 2019.*
- Institutional Support for Informal Caregivers As a Mechanism to Enhance Use of Vocational Reintegration Services for Disabled Veterans. *Poster presentation at the American Society of Health Economists, Washington, DC June 2019.*

Caregiver Support Program

<https://www.caregiver.va.gov/>

Post 9/11 GI Bill

[https://www.benefits.va.gov/gibill/post911\\_gibill.asp](https://www.benefits.va.gov/gibill/post911_gibill.asp)

Vocational Rehabilitation and Employment

[https://www.benefits.va.gov/VOCREHAB/edu\\_voc\\_counseling.asp](https://www.benefits.va.gov/VOCREHAB/edu_voc_counseling.asp)

Compensated Work Therapy Program (Supported Employment)

<https://www.va.gov/health/cwt/supportedemployment.asp>

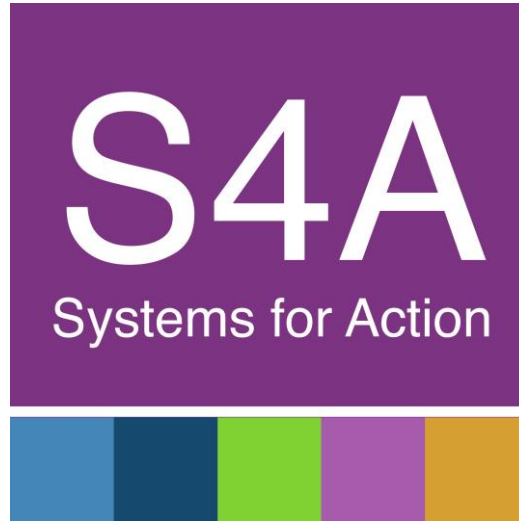
Thank you!

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Questions?



[www.systemsforaction.org](http://www.systemsforaction.org)

# Upcoming Webinars

- **August 21<sup>st</sup>, 2019 12 p.m., ET**

Systems for Action Individual Research Project

*TBD*

- **September 11<sup>th</sup>, 2019 12 p.m., ET**

Systems for Action Individual Research Project

[Financing Integrated Health and Social Services for Populations with Mental Illness](#)

*Yuhua Bao, PhD, Weill Cornell Graduate School of Medical Sciences, and Lisa Dixon, MD, MPH, NY State Psychiatric Institute/Columbia University Medical Center*

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Robert Wood Johnson  
Foundation

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UNIVERSITY OF NORTHERN COLORADO



# EXTRA SLIDES

- IV is a variable that is only related to outcome through treatment variable
- To be justified IV must be strongly related to treatment (IV strength) and must not be related to outcome except through treatment (IV validity)
- Used new IV method<sup>1</sup> developed for Cox PH models, which applies a two-stage residual inclusion (2SRI) plus a frailty term in the second stage equation

<sup>1</sup>Camblor-Martinez et al, 2018

- IV Strength: F test of IV in 1<sup>st</sup> stage equation
  - Post 9/11 GI Bill: F-statistic=1.3
  - VR&E: F-statistic=17.2
  - Supported employment: F-statistic=36.2
- IV Validity: Balance of covariates was greatly improved across median of IV compared with treated/control groups